SANYO

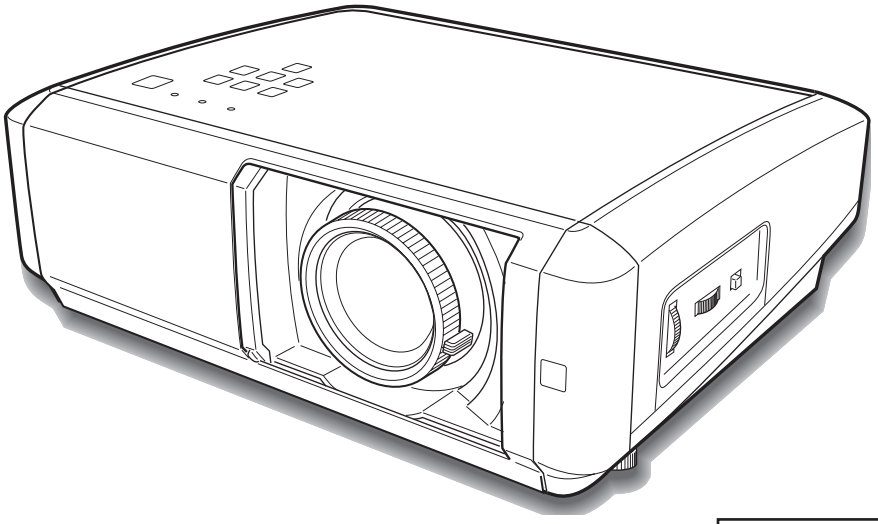
FILE NO.

SERVICE MANUAL

Multimedia Projector **Model No. PLV-Z5**
PLV-Z5BK

U.S.A., Canada,Europe,
Asia, Africa,U.K.

Original Version



Chassis No. MC4-Z500
MC4-Z5BK00

NOTE: Match the Chassis No. on the Cabinet Bottom with the Chassis No. in the Service Manual.

If the Original Version Service Manual Chassis No. does not match the unit's, additional Service Literature is required. You must refer to "Notices" to the Original Service Manual prior to servicing the unit.

RoHS
- This product does not contain any hazardous substances prohibited by the RoHS Directive. (You will find "RSF" mark near the rating plate on the RoHS compliant product.)

WARNING
- You are requested to use RoHS compliant parts for maintenance or repair.
- You are requested to use lead-free solder.

PRODUCT CODE

PLV-Z5		PLV-Z5BK	
1 122 365 00	(MC4A)	1 122 365 20	(MC4AA)
1 122 366 00	(PC4A)	1 122 366 20	(PC4AA)
1 122 366 02	(PC4C)	1 122 366 22	(PC4CA)

REFERENCE NO. SM5110808-00

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SAFETY PRECAUTIONS

WARNING:
The chassis of this projector is isolated (COLD) from AC line by using the converter transformer. Primary side of the converter and lamp power supply unit circuit is connected to the AC line and it is hot, which hot circuit is identified with the line (⎓) in the schematic diagram. For continued product safety and protection of personnel injury, servicing should be made with qualified personnel.

The following precautions must be observed.

1: An isolation transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector.

2: Comply with all caution and safety-related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis.

3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, etc.

DO NOT OPERATE THIS PROJECTOR WITHOUT THE PROTECTIVE SHIELD IN POSITION AND PROPERLY SECURED.

4: Before replacing the cabinet cover, thoroughly inspect the inside of the cabinet to see that no stray parts or tools have been left inside.

Before returning any projector to the customer, the service personnel must be sure it is completely safe to operate without danger of electric shock.

PRODUCT SAFETY NOTICE

Product safety should be considered when a component replacement is made in any area of the projector. Components indicated by mark ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of there parts must be made by exactly the same parts.

SERVICE PERSONNEL WARNING

Eye damage may result from directly viewing the light produced by the Lamp used in this equipment. Always turn off Lamp before opening cover. The Ultraviolet radiation eye protection required during this servicing.
Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages(15kV - 20kV) at its starts.
Since the lamp is very high temperature during units operation replacement of the lamp should be done at least 45 minutes after the power has been turned off, to allow the lamp cool-off.

■ Specifications

Technical Specifications

Projector Type	Multimedia Projector
Dimensions (W x H x D)	15.04″ x 4.99″ x 11.98″ (382 mm x 126.8 mm x 304.3 mm) (not including raised portions)
Net Weight	10.2 lbs (5.0 kg)
LCD Panel System	0.7″ wide TFT Active Matrix type, 3 panels
Panel Resolution	1280 x 720 dots
Number of Pixels	2,764,800 (1280 x 720 x 3 panels)
Color System	PAL, SECAM, NTSC, NTSC4.43, PAL-M, and PAL-N
High Definition TV Signal	480i, 480p, 575i, 575p, 720p and 1080i
Scanning Frequency	H-sync. 15 ~ 80 KHz, V-sync. 50 ~ 100 Hz
Projection Image size (Diagonal)	Adjustable from 40″ to 300″
Projection Lens	F 2.0 ~ 3.0 lens with f 21.3 mm ~ 42.6 mm with manual zoom and focus
Throw Distance	3.9′ ~ 30.2′ (1.2 m ~ 9.2 m)
Projection Lamp	145 W
Video Input Jacks	RCA Type x 1 (Video), RCA Type x 3 (Y, Pb/Cb, Pr/Cr) x 2 and Mini DIN 4 pin x 1 (S-video)
Computer Input Terminal	(VGA) HDB 15 Terminal x 1
HDMI Input Terminal	HDMI terminal 19 pin x 2
Service Port Connector	Mini DIN 8 pin x 1
Feet Adjustment	0˚ to 7.7˚
Voltage and Power Consumption	AC 100 ~ 120 V (2.4 A Max. Ampere), 50/60 Hz (The U.S.A. and Canada) AC 200 ~ 240 V (1.3 A Max. Ampere), 50/60 Hz (Continental Europe and The U.K.)
Operating Temperature	41 ˚F ~ 95 ˚F (5 ˚C ~ 35 ˚C)
Storage Temperature	14 ˚F ~ 140 ˚F (-10 ˚C ~ 60 ˚C)
Remote Control	Power Source : AA or LR06 1.5V ALKALINE Type x 2 Operating Range : 16.4′ (5 m) / ± 30˚ Dimensions : 1.57″ x 0.96″ x 5.12″ (40 mm x 24.4 mm x 130 mm) Net Weight : 3.6 oz (102 g) (including batteries)
Accessories	Owner's Manual (CD-ROM) Quick Reference Guide AC Power Cord Remote Control and Batteries Air Blower

- The specifications are subject to change without notice.
- LCD panels are manufactured to the highest possible standards. Even though 99.99% of the pixels are effective, a tiny fraction of the pixels (0.01% or less) may be ineffective by the characteristics of the LCD panels.

c UL US LISTED

This symbol on the nameplate means the product is Listed by Underwriters Laboratories Inc. It is designed and manufactured to meet rigid U.L. safety standards against risk of fire, casualty and electrical hazards.

CE

The CE Mark is a Directive conformity mark of the European Community (EC).

dnx pixelworks™

Pixelworks ICs used.

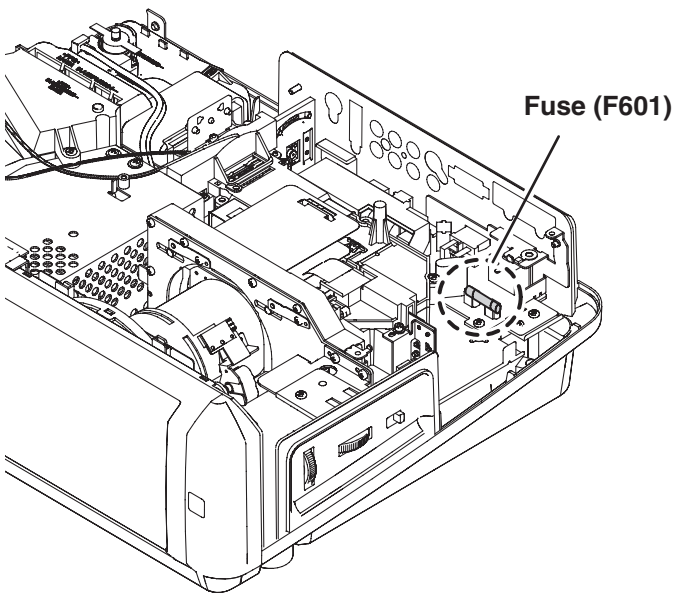
■ Circuit Protections

This projector provides the following circuit protections to operate in safety. If the abnormality occurs inside the projector, it will automatically turn off by operating one of the following protection circuits.

● Fuse

A fuse(F601) is located inside of the projector. When the POWER indicator is not lightning, the fuse may be opened. Check the fuse as following steps.
The fuse should be used with the following type;

Fuse Part No. : 323 022 2105
TYPE T4.0AH 250V FUSE
LITTEL FUSE INC. TYPE 215004



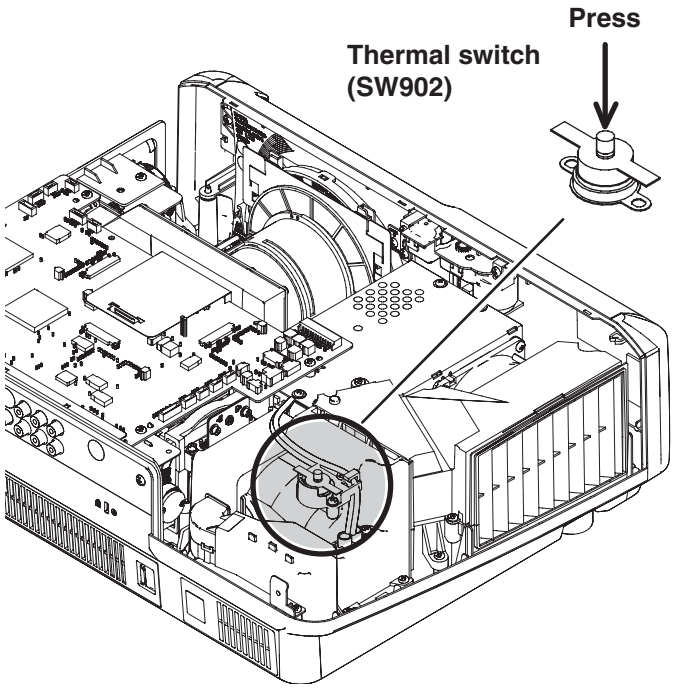
How to replace the fuse

1. Remove the cabinet top and main board following to "Mechanical Disassemblies".
2. Remove the fuse from fuse holder on the Filter Board.

To install the fuse, take reversed step in the above.

● Thermal switch

There is the thermal switch (SW902) inside of the projector to prevent the internal temperature rising abnormally. When the internal temperature reaches near 90°C, the thermal switch cuts off the drive signal to the lamp circuit automatically. The thermal switch is not reset to normal automatically, even if the internal temperature becomes normal. Reset the thermal switch following procedure.
Check the resistance between terminals of thermal switch by using a tester. If it has high impedance, thermal switch may be open.



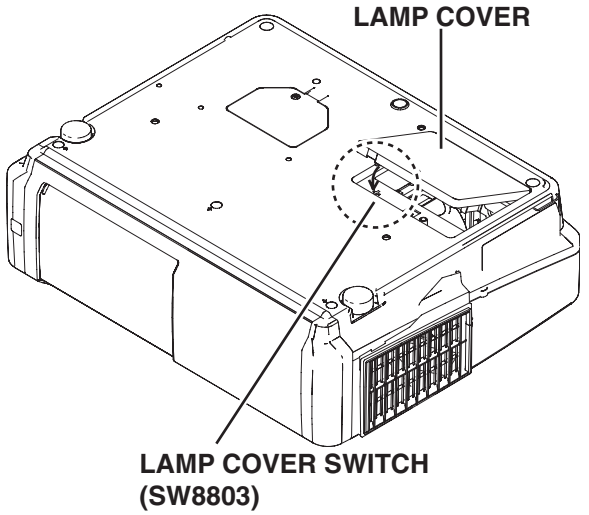
How to reset the thermal switch

1. Remove the cabinet top ass'y following to "Mechanical Disassemblies".
2. Press the reset button on the thermal switch with a sharp-pointed tool.

CAUTION:
Before press the reset button, make sure that the AC cord must be disconnected from the AC outlet.

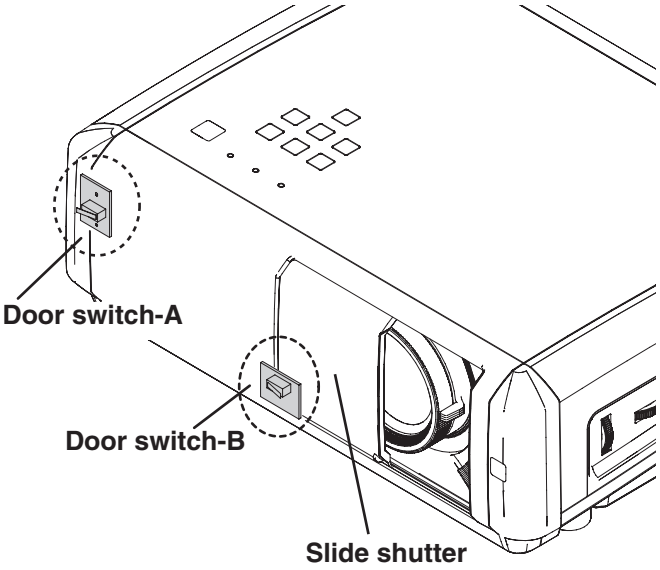
● Lamp cover switch

The lamp cover switch (SW8803) cuts off the drive signal to the lamp circuit when the lamp cover is removed or not closed completely.
After opening the lamp cover for replacing the lamp unit, place the lamp cover correctly otherwise the projector can not turn on.



● Door switches for automatic slide shutter

The projector provides 2 door switches against an accident of the automatic slide shutter.
The door switch-A(SW8801) turns ON when the slide shutter is opened.
The door switch-B(SW8811) turns ON when the slide shutter is closed.
If the slide shutter stops half-open after turning on, the POWER indicator will blink orange and the projector goes to stand-by mode after cooling. In this case, press the POWER ON/STAND-BY button again.
If the slide shutter is closed during operation, the projector is automatically turned off for safety.
In this case, be sure to check the position of the slide shutter. After opening or closing the slide shutter manually, press the POWER ON/STAND-BY button and the projector turns on.



● Warning temperature and power failure protection

The projector will be automatically turned off when the internal temperature of the projector is abnormally high, or the cooling fans stop spinning, or the power supplies in the projector are failed.

- If the WARNING indicator is flashing, it may detect the abnormal temperature inside the projector. Check the following possible causes and wait until the WARNING indicator stops flashing, and then try to turn on the projector.
- If the WARNING indicator lights red, it may defect the cooling fans or power supply circuits. Check fans operation and power supply lines referring to the chapter “Power supply & protection circuit” in the power Supply Lines section.

Possible causes

- Air filters are clogged with dust particles. Remove dust from the air filters.
- Ventilation slots of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
- Check if projector is used at higher temperature place (Normal operating temperature is 5 to 35˚C or 41 to 95˚F)

■ Maintenance and Cleaning

After long periods of use, dust and other particles will accumulate on the LCD panel, prism, mirror, polarized glass, lens, etc., causing the picture to darken or color to blur. If this occurs, clean the inside of optical unit.

Remove dust and other particles using air spray. If dirt cannot be removed by air spray, disassemble and clean the optical unit.

● Cleaning with air spray

1. Remove the cabinet top following to "Mechanical Disassemblies".
2. Clean up the LCD panel and polarized glass by using the air spray from the cabinet top opening.

Caution:

Use a commercial (inert gas) air spray designed for
cleaning camera and computer equipment. Use a
resin-based nozzle only. Be vary careful not to damage optical parts with the nozzle tip. Never use any kind of cleanser on the unit. Also, never use abrasive materials on the unit as this may cause irreparable damage.

● Disassembly Cleaning

Disassembly cleaning method should only be performed when the unit is considerable dirty and cannot be sufficiently cleaned by air spraying alone.

Be sure to readjust the optical system after performing disassembly cleaning.

1. Remove the cabinet top and main units following to "Mechanical Disassemblies".
2. Remove the optical base top following to"Optical Unit Disassemblies". If the LCD panel needs cleaning, remove the LCD panel unit following to "LCD panel/Prism ass'y replacement".
3. Clean the optical parts with a soft cloth. Clean extremely dirty areas using a cloth moistened with alcohol.

Caution:

The surface of the optical components consists of multiple dielectric layers with varying degrees of refraction. Never use organic solvents (thinner, etc.) or any kind of cleanser on these components.
Since the LCD panel is equipped with an electronic circuit, never use any liquids (water, etc.) to clean the unit. Use of liquid may cause the unit to malfunction.

Cleaning the RGB panels

Blemishes such as dust and dirt on the internal optical components of the projector tend to degrade the brightness of the screen and are likely to appear as a shadow on the screen, which can lead to deterioration of image quality.

This projector is equipped with the RGB panel cleaning holes on the bottom for cleaning of the internal parts (such as optical components) of the projector. When you use the projector for a lengthy period of time or a shadow of dust appears on the projected screen, clean the inside of the projector.

Using the supplied air blower and with the Cleaning function in the Setting Menu, you can remove the dusts from the projector.

✔**Note:**

- Dust might not be removed completely with these steps. In that case, contact the dealer where you purchased the projector or service center.

CAUTION

PROHIBITED

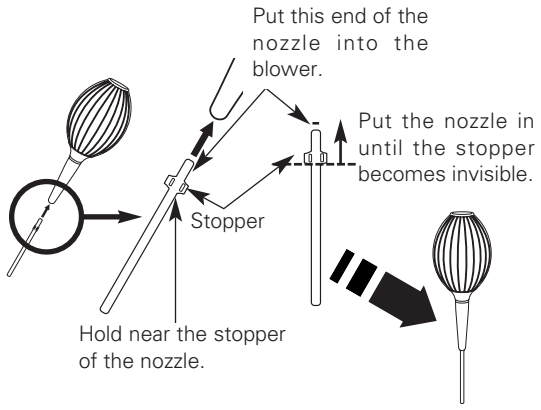
CAUTION IN USING THE AIR BLOWER AND THE NOZZLE

- Turn the projector over when using the blower.
- Use only the supplied air blower and nozzle to keep the projector from being out of oder or damaged. We could not guarantee the malfunction or breakage caused by other tools.
- Never use a commercially available compressed air duster. It causes the interior of the projector to malfunction with release of cold liquid propellant.
- Put the projector on a soft cloth to prevent scratching the surface.
- Open the hole cover only when you clean the inside of the projector.
- Do not look into the holes. A strong light could damage your eyes. (Do not look into the Air intake vent and Exhaust vent, either.)
- Use the blower and nozzle only to clean the projector. Do not attempt to use them for other purposes. Do not use the blower and nozzle against persons (particularly to eyes, mouth or ear, and so on). Be especially careful to ensure that children do not put the blower and nozzle into their mouth and swallow them.
- Do not attempt to pull the nozzle out of the blower. If the nozzle happened to be pulled out, put it back into the blower immediately.
- Do not use the blower supplied with this projector (model: Z5/Z5BK) to clean the other models: Z4, Z3, and Z1X.

In the unlikely event that something goes wrong (smoke, a strange sound, an abnormal odor, and such) while you are cleaning, turn off and unplug the projector immediately, then call the dealer where you purchased the projector or service center.

If the nozzle is pulled out ....

The nozzle has the stopper. Put the stopper-side of the nozzle into the blower. Put the nozzle firmly into the blower until the stopper becomes invisible.
When putting the nozzle into the blower, hold near the stopper so that it will not break.
Make sure not to attempt to pull the nozzle out of the blower.


Put this end of the nozzle into the blower.
Put the nozzle in until the stopper becomes invisible.
Stopper
Hold near the stopper of the nozzle.

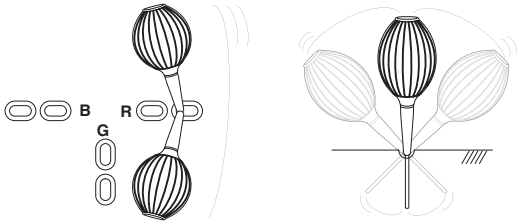
Clean by using the Cleaning function in the Setting Menu

1. Turn the projector on and press the MENU button to display the On-Screen Menu. Select the Setting Menu with the Point ▲▼ buttons. Press the Point ▶ or OK buttons to access the sub-menu items.
2. Select Cleaning and then press the OK or Point ▶ buttons. The screen is blacked out temporarily.
3. Turn the projector over. Loosen the screw that secures the hole cover, and then open the hole cover.
4. Put the blower's nozzle into a hole.
5. Blow air into the projector with the blower watching the position of the dust from the screen.
6. When cleaning is done, pull the blower out of the hole and replace the hole cover and secure it with the screw.
7. Set the projector back into the right position, then press any button on the top control or on remote control to quit the Cleaning function.

* Do not open the hole cover except when you clean the inside of the projector to prevent foreign matters from getting into the projector. If it is open especially while operating the projector, the optical parts could damage.

Which hole to put the nozzle in?

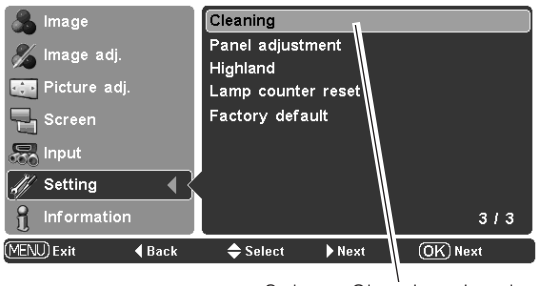
When you look at the screen:
- When a red spot (dust) is showed up, put the nozzle into the R panel cleaning holes.
- When a green spot (dust) is showed up, put the nozzle into the G panel cleaning holes.
- When a blue spot (dust) is showed up, put the nozzle into the B panel cleaning holes.



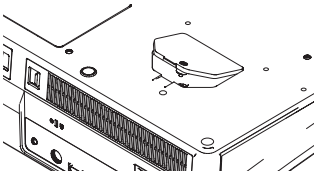
Wave the nozzle back and forth inside of the projector. (Do not attempt to bend the nozzle.)

Use only the supplied blower and nozzle. Do not use a commercially available compressed air duster. It causes the interior of the projector to malfunction with release of cold liquid propellant. We could not guarantee the malfunction of breakage by using other tools.

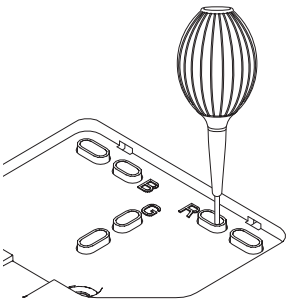
Cleaning



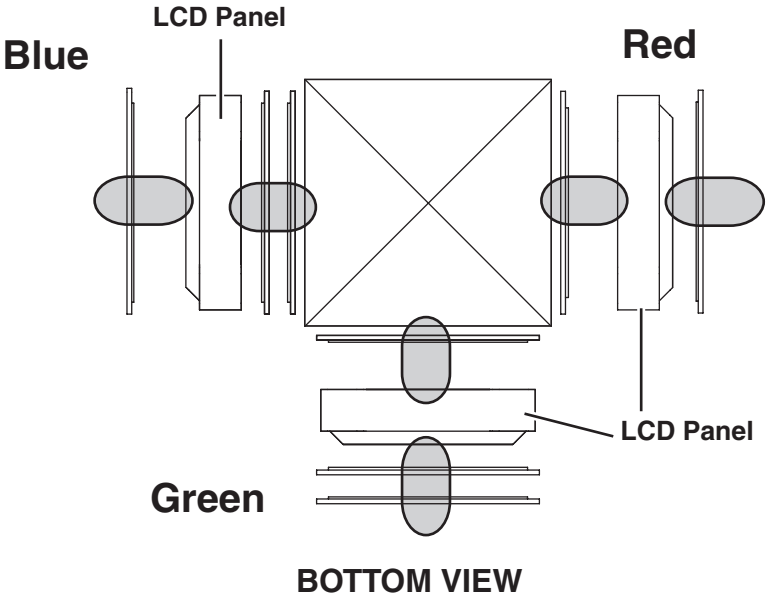
Select Cleaning in the Setting Menu.



Loosen the screw that secures the hole cover.



The nozzle will go no further than a certain point when it is put into the hole. Do not attempt to push the nozzle in further, or it could break and is stuck inside of the projector.



Cleaning the Air Filters

The air filters prevent dust from accumulating on the surface of the optical elements inside the projector. Should the air filters become clogged with dust particles, it will reduce cooling fans' effectiveness and may result in a buildup of internal heat and adversely affect the life of the projector. Clean the air filters by following the steps below.

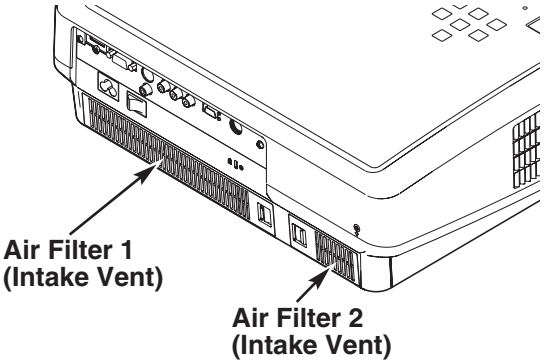
Cleaning the Air Filter 1 and 2

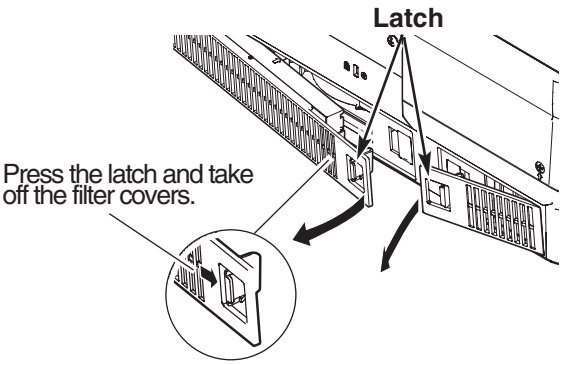
1 Press the latch and release it. Take off the filter covers. Do not try to pull the delicate filter part.

2 Pull out the air filters.
When taking out the Air Filter 2, put your finger on the air filters tab and pull.

3 Remove dust and dirt with a soft brush or a vacuum cleaner. Be careful not to damage the air filters and do not clean them with water.
When the Air Filter 1 gets dusty and dirty, replace it with a new one. For ordering the replacement filter, contact your sales dealer.

4 Put the air filters back into the position and close the filter covers. Do not push the delicate filter part. Make sure that the air filters are properly and fully inserted.





CAUTION

Do not operate the projector with the air filters removed. Dust may accumulate on the LCD panel degrading the picture quality of the projection mirror. Do not put anything into the air intake vents. It may result in malfunction of the projector.

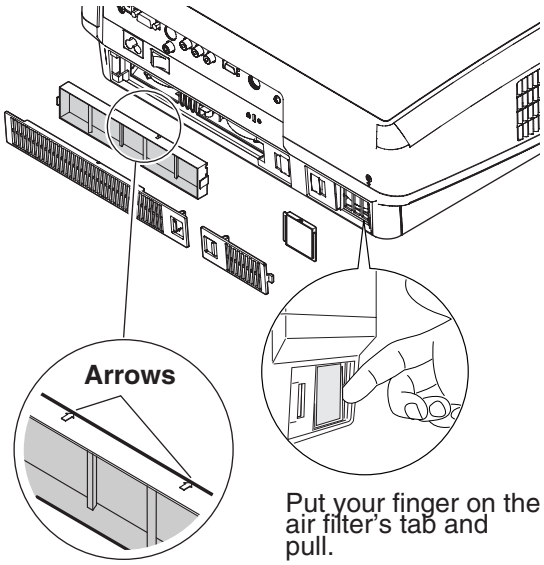
RECOMMENDATION

We recommend avoiding dusty/smoky environments when operating the projector. Usage in these environment may cause a poor image quality.

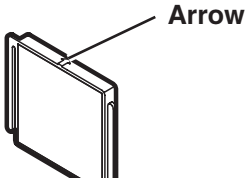
When using the projector under dusty or smoky conditions, dust may accumulate on a lens, LCD panels, or optical elements inside the projector degrading the quality of a projected image.

When the symptoms above are noticed, contact your authorized dealer or service station for proper cleaning.

Pull out the air filters.

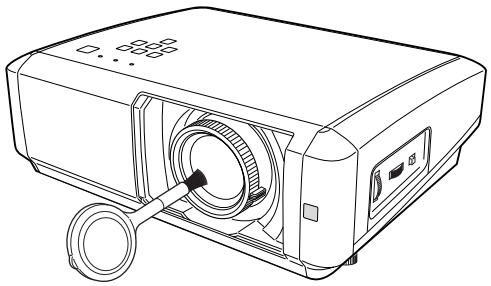


When putting back this air filter, make sure that the arrows on the filter are facing towards the projector.



Cleaning the Projection Lens

Unplug the AC power cord before cleaning.

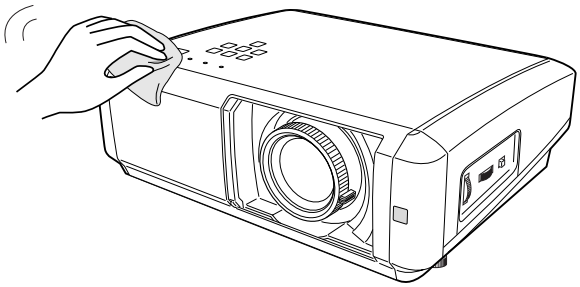


Gently wipe the projection lens with a cleaning cloth that contains a small amount of non-abrasive camera lens cleaner, or use a lens cleaning paper or a commercially available air blower to clean the lens. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the lens.

When the projector is not in use, make sure that the automatic slide shutter is closed.

Cleaning the Projector Cabinet

Unplug the AC power cord before cleaning.



Gently wipe the projector body with a dry soft cloth. When the cabinet is heavily soiled, apply a small amount of mild detergent and finish with a dry soft cloth. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the cabinet.

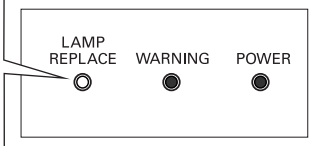
When the projector is not in use, put it in an appropriate carrying case to protect it from dust and scratches.

■ Lamp Replacement

When the life of the projection lamp of this projector draws to an end, the LAMP REPLACE indicator emits a yellow light. If this indicator lights yellow, replace the lamp with a new one promptly.
The time when the LAMP REPLACE indicator lights is depending on the lamp mode.

This indicator lights yellow when the life of the projection lamp draws to an end.

Top Control



CAUTION

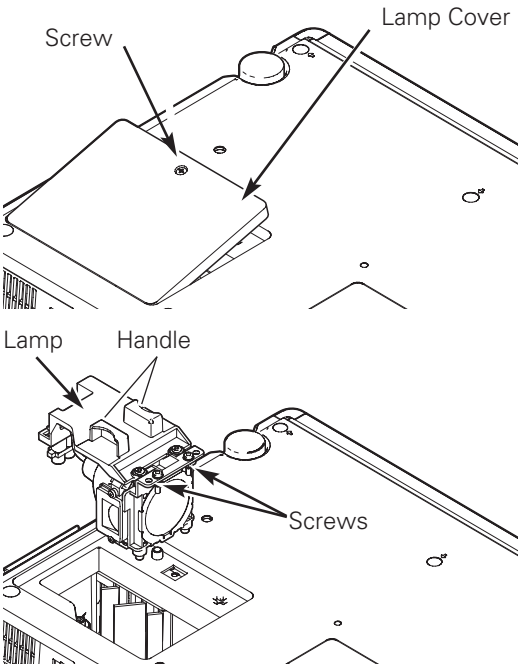
Allow a projector to cool, for at least 45 minutes before you open the Lamp cover. The inside of the projector can become very hot.

CAUTION

For continued safety, replace the lamp with the same type. Do not drop the lamp or touch the glass bulb! The glass can shatter and may cause injury.

Follow these steps to replace the lamp.

1. Turn off the projector and unplug the AC power cord. Allow the projector to cool for at least 45 minutes.
2. Turn the projector over. Loosen the screw that secures the lamp cover, and then open the lamp cover.
3. Loosen the two (2) screws that secure the lamp. Lift the lamp out of the projector by using the built in handle.
4. Replace the lamp with a new one and secure it with the two (2) screws. Make sure that the lamp is set properly. Replace the lamp cover and secure it with the screw.
5. Connect the AC power cord to the projector and turn on the projector.
6. **Reset the Lamp replacement counter.**
   See “Lamp Replacement Counter” on the next page.



LAMP HANDLING PRECAUTIONS

This projector uses a high-pressure lamp which must be handled carefully and properly. Improper handling may result in accidents, injury, or create a fire hazard.

- Lamp lifetime may differ from lamp to lamp and according to the environment of use. There is no guarantee of the same lifetime for each lamp. Some lamps may fail or terminate their lifetime in a shorter period of time than other similar lamps.
- If the projector indicates that the lamp should be replaced, i.e., if the LAMP REPLACE indicator lights up, replace the lamp with a new one IMMEDIATELY after the projector has cooled down.
  (Follow carefully the instructions in the Lamp Replacement section of this manual.) Continuous use of the lamp with the LAMP REPLACE indicator lighted may increase the risk of lamp explosion.
- A Lamp may explode as a result of vibration, shock or degradation as a result of hours of use as its lifetime draws to an end. Risk of explosion may differ according to the environment or conditions in which the projector and lamp are being used.

IF A LAMP EXPLODES, THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE TAKEN.

If a lamp explodes, disconnect the projector’s AC plug from the AC outlet immediately. Contact an authorized service station for a checkup of the unit and replacement of the lamp. Additionally, check carefully to ensure that there are no broken shards or pieces of glass around the projector or coming out from the cooling air circulation holes. Any broken shards found should be cleaned up carefully. No one should check the inside of the projector except those who are authorized trained technicians and who are familiar with projector service. Inappropriate attempts to service the unit by anyone, especially those who are not appropriately trained to do so, may result in an accident or injury caused by pieces of broken glass.

ORDER REPLACEMENT LAMP

Replacement lamp can be ordered through your dealer. When ordering a projection lamp, give the following information to the dealer.

- **Model No. of your projector : PLV-Z5 / PLV-Z5BK**
- **Replacement Lamp Type No. : POA-LMP94**
  (Service Parts No. 610 323 5998)

Lamp Replacement Counter

Be sure to reset the lamp replacement counter after the lamp is replaced. When the lamp replacement counter is reset, the LAMP REPLACE indicator stops lighting.

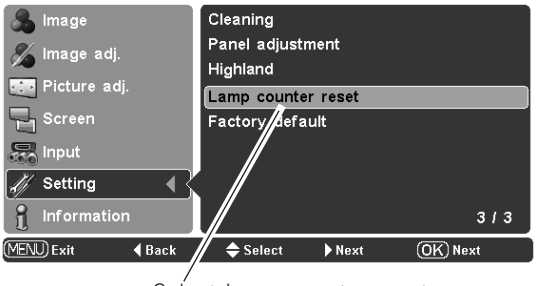
1 Turn the projector on and press the MENU button to display the On-Screen Menu. Select the Setting Menu with the Point ▲▼ buttons. Press the Point ▶ button to access the sub-menu items.

2 Select Lamp counter reset and then press the the OK or Point ▶ buttons. "Lamp replacement counter reset?" will appear. Select [Yes] and then press the OK or Point ▶ buttons.

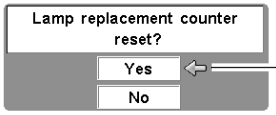
3 Another confirmation dialog box appears, and select [Yes] to reset the Lamp replacement counter.

✔**Note:**
- Do not reset the Lamp replacement counter without implementing lamp replacement. Be sure to reset the Lamp replacement counter only after replacing the lamp.

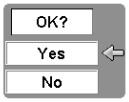
Lamp counter reset



Select Lamp counter reset and press the OK or Point ▶ buttons. "Lamp replacement counter reset" will appear.



Select [Yes] and press the OK or Point ▶ buttons, then another confirmation box will appear.



Select [Yes] again to reset the lamp counter.

How to check lamp used time

The LAMP REPLACE indicator will light when the total lamp used time reaches 3,000 hours. This is to indicate that lamp replacement is required.
The total lamp used time is calculated by using the below expression;

Total lamp used time = **T**eco + **T**normal x (1.5)
Teco: used time in Eco mode
Tnormal: used time in Normal/Auto1/Auto2 mode

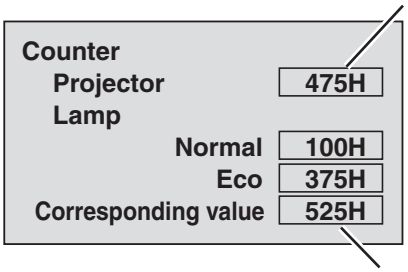
You can check the lamp counter following procedure.

1 Press and hold the **POWER ON/STAND-BY** button on the projector or the remote control unit for more than 20 seconds.

2 The projector used time and lamp used time will be displayed on the screen briefly.

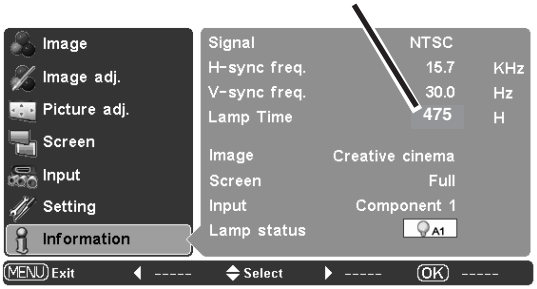
You can also check "Lamp Time" in the "Information Menu". This value is actual lamp used time.
"Lamp Time" = **T**eco + **T**normal

Lamp Counter Display **Projector used time**



Total lamp used time

Information Menu **Total lamp used time (actual)**



■ Mechanical disassemblies

Disassemble should be made following procedures in numerical order.
Following steps show the basic procedures, therefore unnecessary step may be ignored.

Caution:

The parts and screws should be placed exactly the same position as the original otherwise it may cause lose of performance and product safety.
The wiring method of the leads and ferrite cores should be returned exactly the same state as the original, otherwise it may cause lose of performance and product safety.

Screws Expression (Type Diameter x Length) mm	
T type	M Type
Tapping screw	Machine screw

1 **Cabinet top ass'y removal.**

1. Remove the 3 screws-A(M3x8) from the bottom side.
2. Remove the 2 screws-B(M3x8), remove the screw-C(T3x8), remove the screw-D(M3x6) and remove the Cabinet top ass'y.

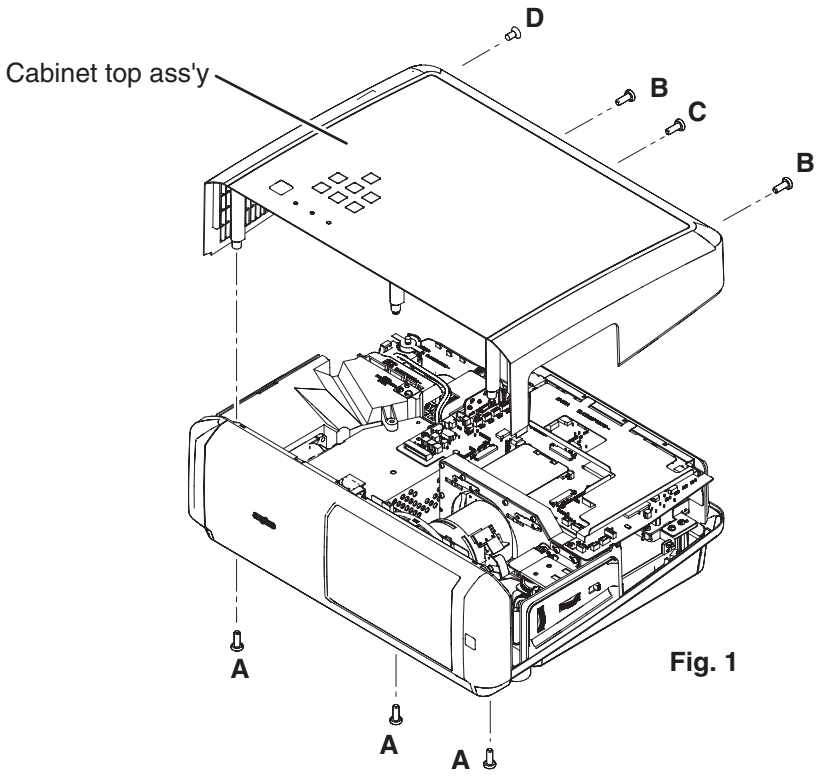


Fig. 1

2 Cabinet top ass'y disassemblies.

1. Remove the 4 screws-A(T3x8).
2. Remove the Control board, remove the Control button, and Decoration inlay LED.

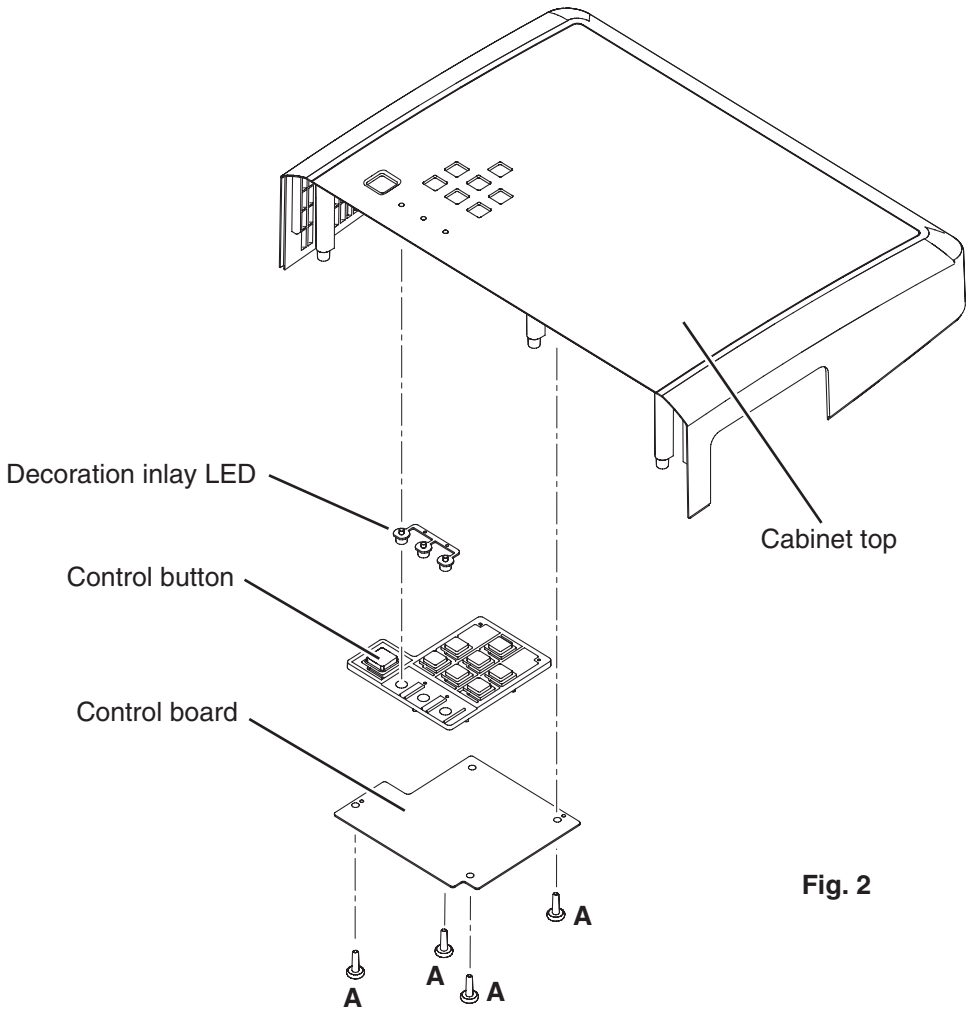
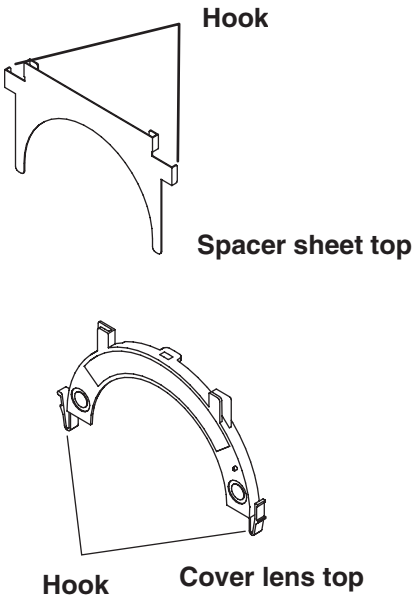


Fig. 2

3 Cover lens top and spacer removal.

1. Unhook the stoppers and remove the Spacer sheet top upward.
2. Unhook the stoppers and remove the Cover lens top upward.



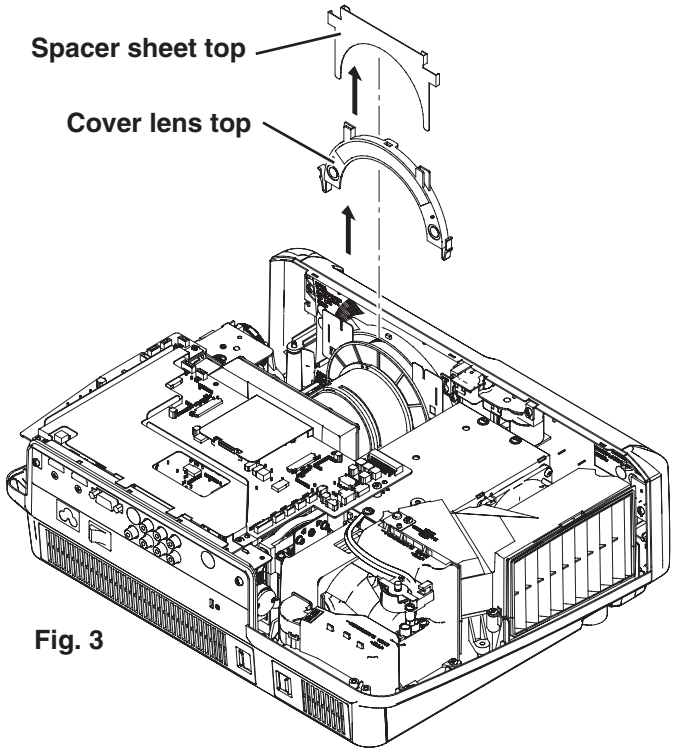


Fig. 3

4-1 Cabinet front ass'y removal.

1. Remove the screw-A(T3x8) and remove the Cabinet front ass'y.

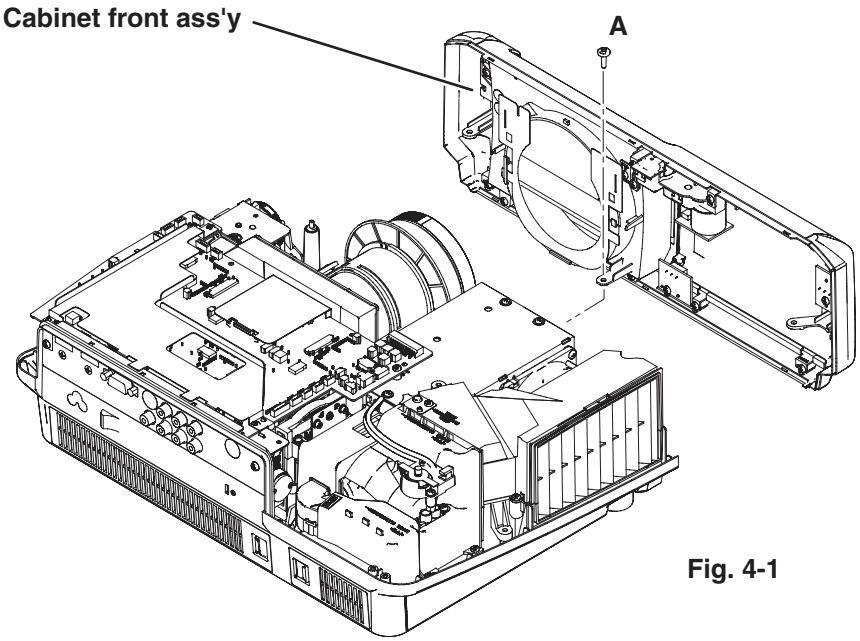


Fig. 4-1

4-2 Cabinet front ass'y disassemblies-1.

1. Remove the screw-A(M3x6).
2. Remove the screws-C(T3x8) and remove the Mounting shutter.
3. Remove the 3 screws-B(T3x8) and remove the Cover lens bottom.

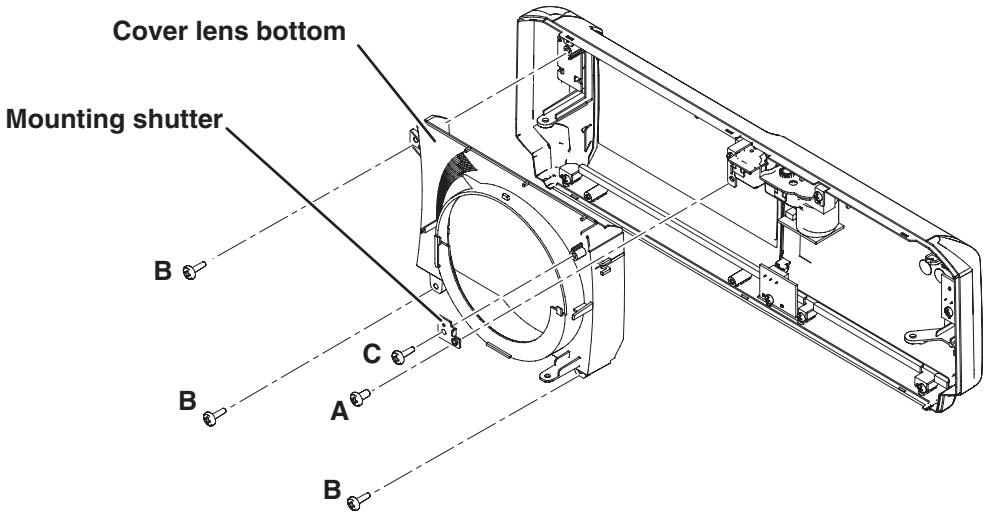


Fig. 4-2

4-3 Cabinet front ass'y disassemblies-2.

1. Unhook the stoppers and remove the R/C board.
2. Remove the screw-A(T3x8) and remove the Door sw board-A.
3. Remove the screw-B(T3x8) and remove the Door sw board-B.

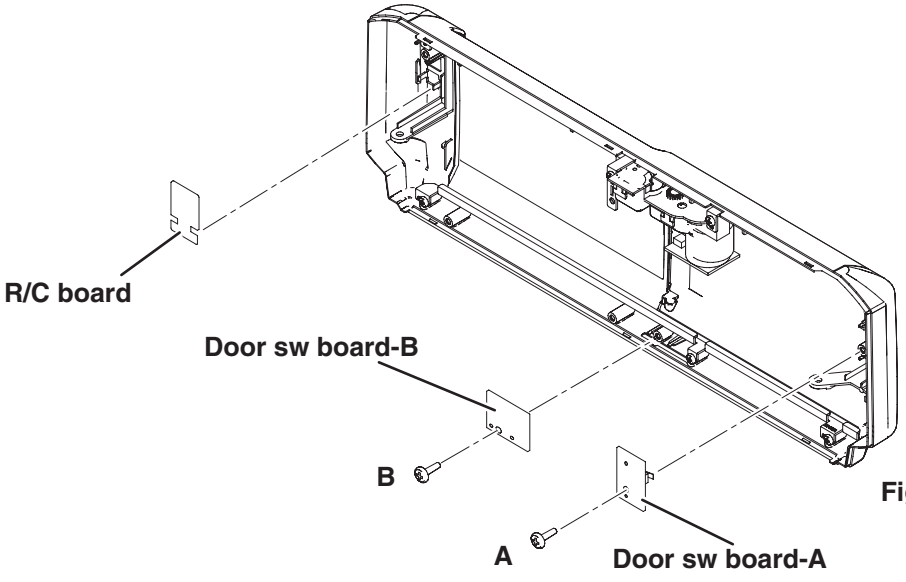


Fig. 4-3

4-4 Cabinet front ass'y disassemblies-3.

1. Remove the 3 screws-A(T3x8) and remove the Shutter rail bottom.
2. Remove the 2 screws-B(T3x8) and remove the Shutter ass'y.

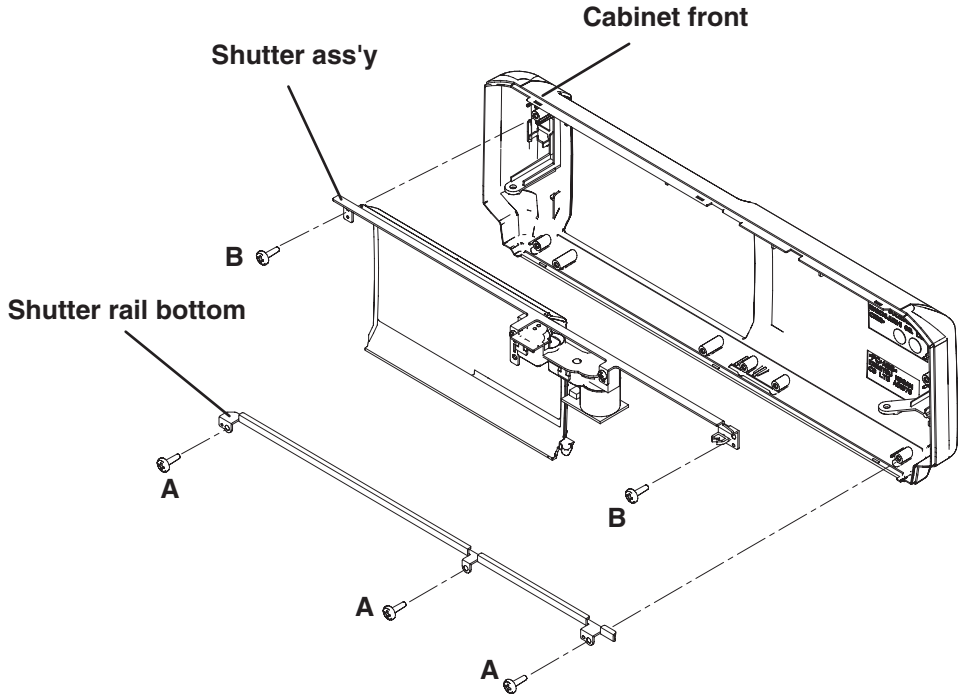


Fig. 4-4

4-5 Cabinet front ass'y disassemblies-4.

1. Remove the Shutter panel.
2. Remove the 2 screws-A(T3x8) and remove the Shutter motor ass'y.

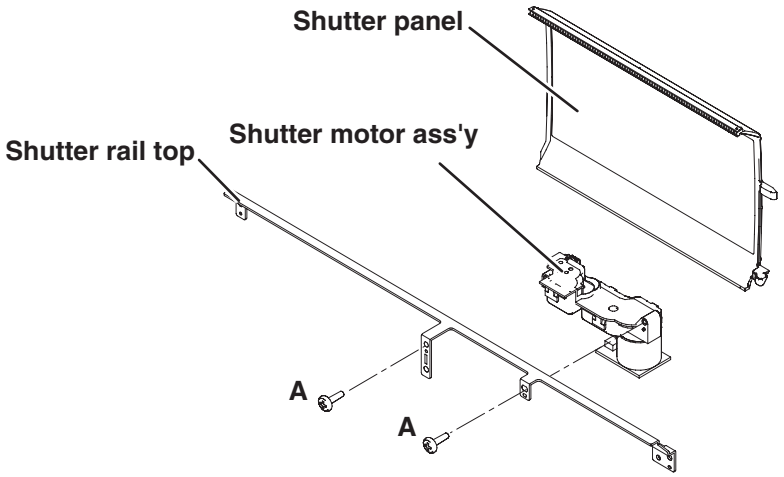


Fig. 4-5

5 Main board removal.

1. Remove the 4 screws-A(M3x6), remove the Shield plate and remove the Main board.

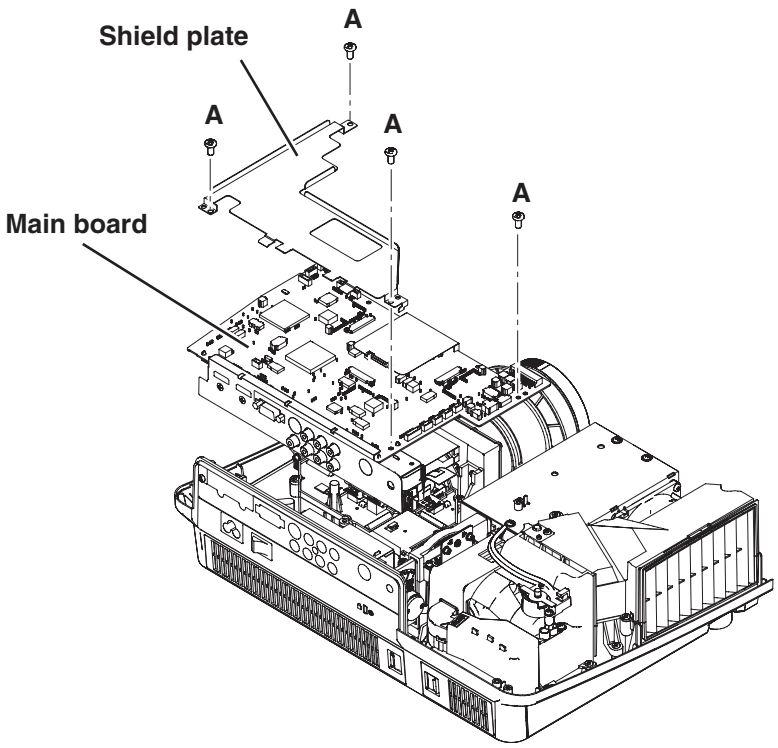


Fig. 5

6-1 Lamp exhaust duct ass'y removal.

1. Remove the screw-A(M3x6), remove 2 screws-B(T3x8) and remove the Lamp exhaust duct ass'y.

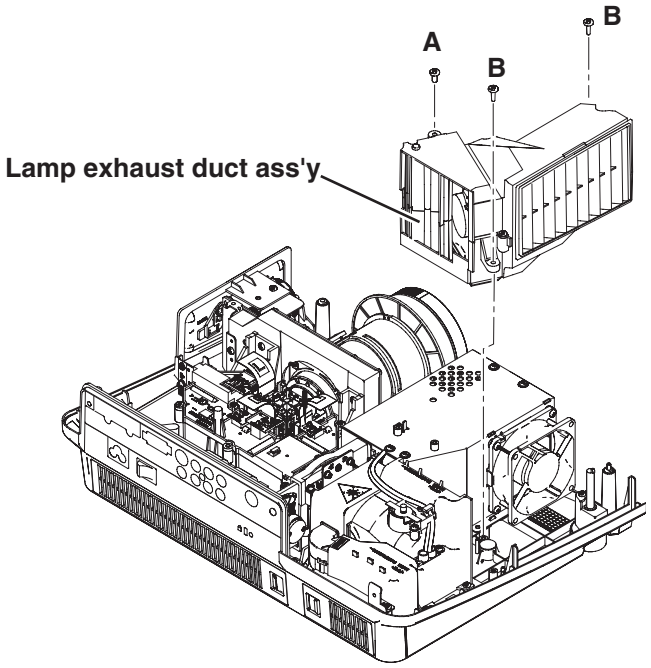


Fig. 6-1

6-2 Lamp exhaust duct ass'y disassemblies-1.

1. Remove the 4 screws-A(T3x8) and remove the Cover duct top.
2. Remove the screw-B(T3x8) and remove the Shield plate.
3. Remove the Cover duct side.

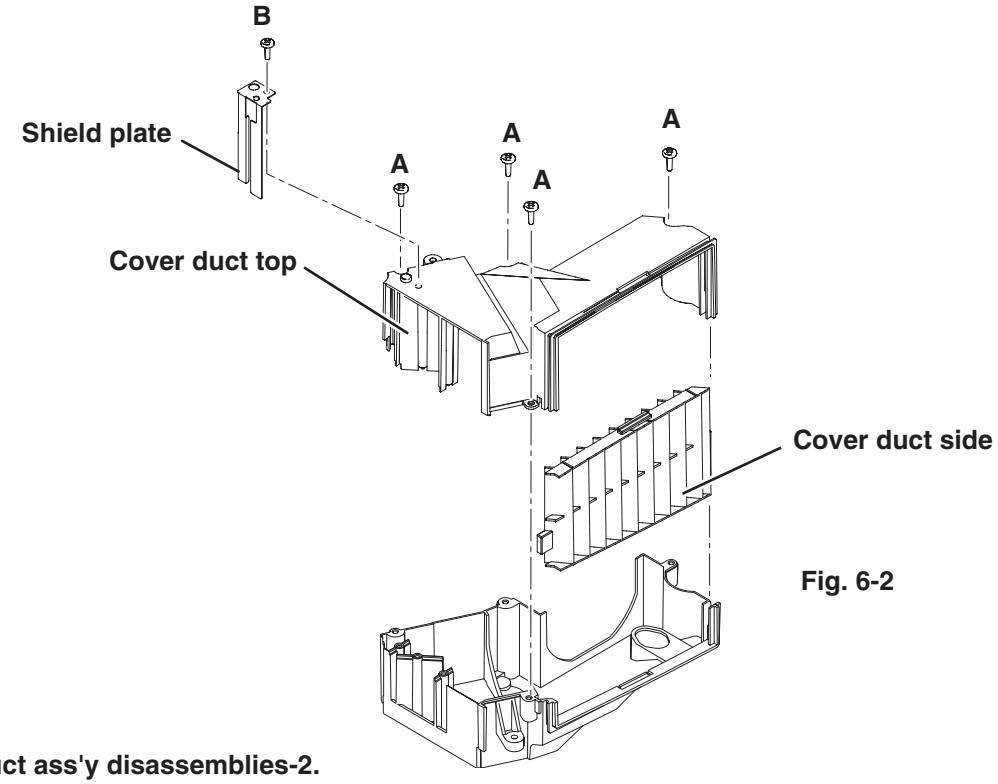


Fig. 6-2

6-3 Lamp exhaust duct ass'y disassemblies-2.

1. Remove the 3 screws-A(T3x8) and remove the Fan(FN903) ass'y.
2. Remove the 4 screws-B(M3x9.2) and remove the Fan(FN903).

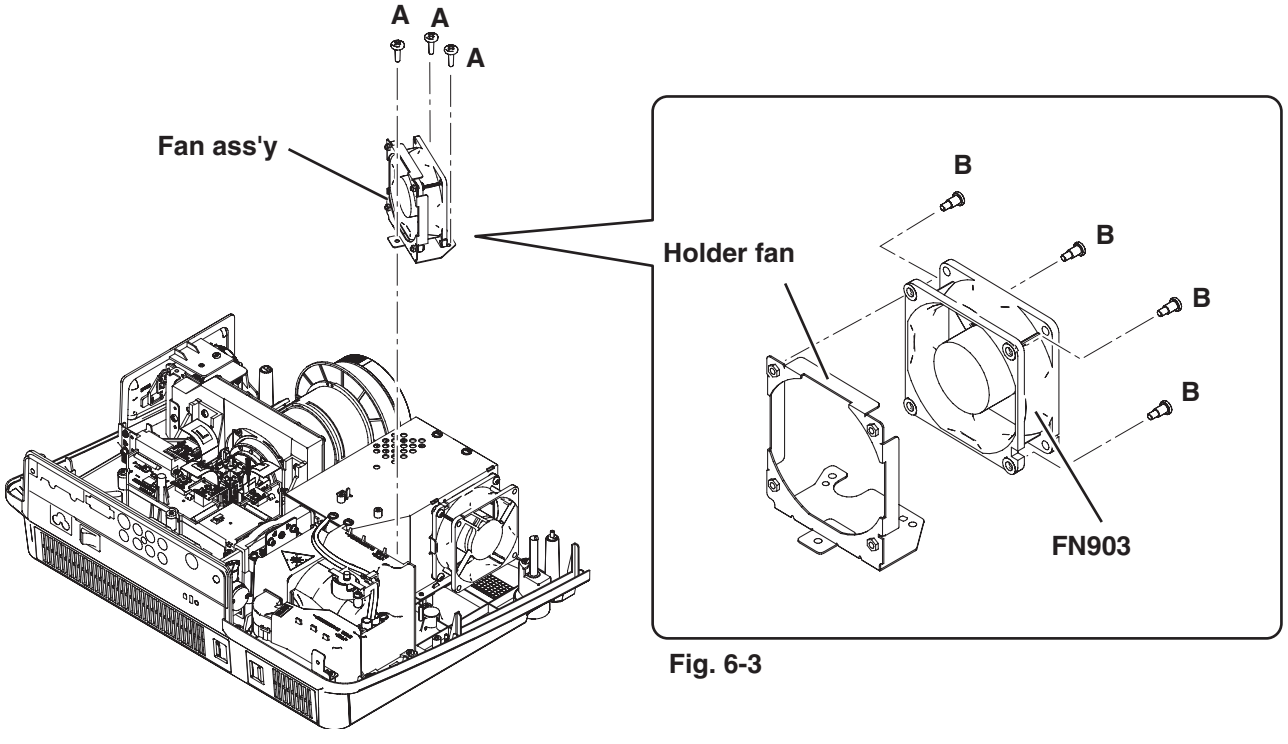


Fig. 6-3

7-1 Main power ass'y removal.

1. Remove the screw-A(M3x8) and disconnect the lamp connector.
2. Remove the screw-B(T3x8), remove the screw-D(T3x10) and remove the Earth bracket .
3. Remove the 3 screws-B(T3x8), remove the screw-C(M3x6) and remove the Main power ass'y .

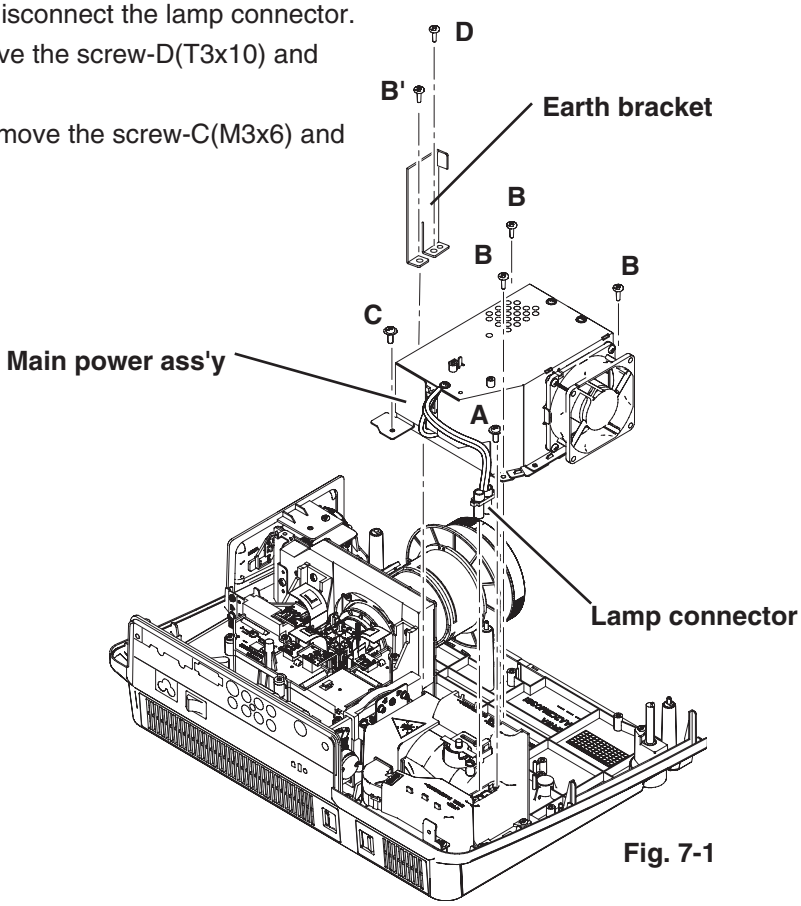


Fig. 7-1

7-2 Main power ass'y disassemblies-1.

1. Remove the 3 screws-A(M3x6) and remove the Cover power top ass'y.

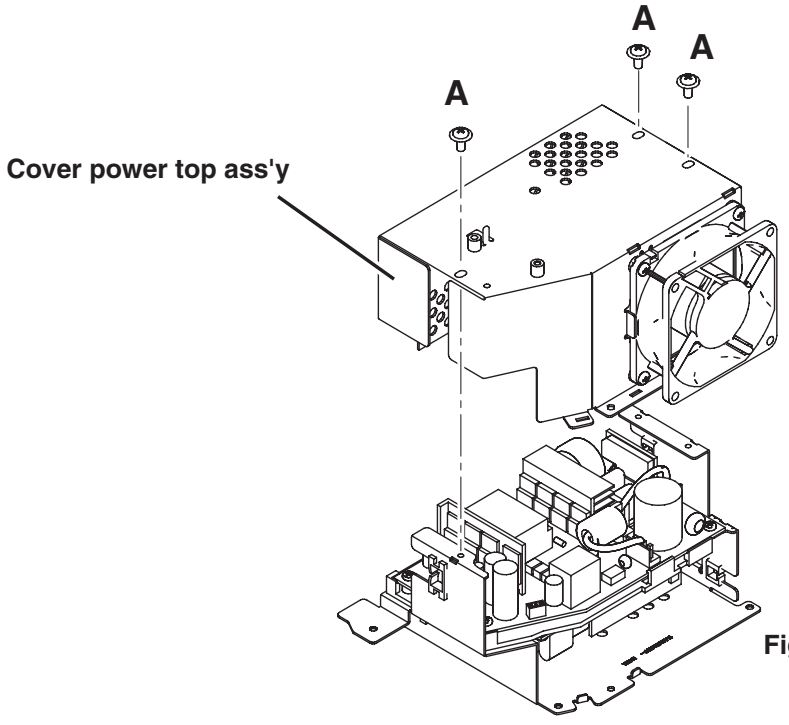


Fig. 7-2

7-3 Main power ass'y disassemblies-2.

1. Remove the 4 screws-A(M3x9.2) and remove the Fan(FN901).

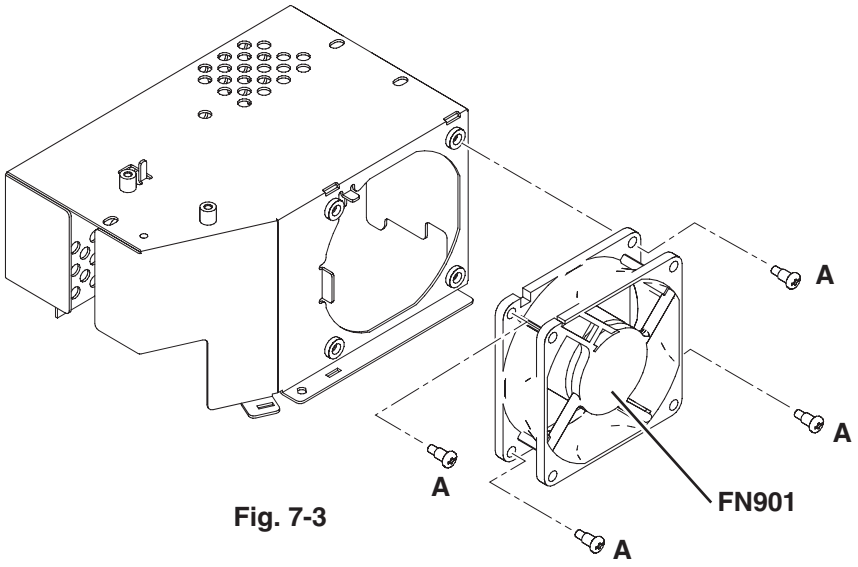


Fig. 7-3

7-4 Main power ass'y disassemblies-3.

1. Remove the 3 screws-A(M3x6) and remove the Power board.
2. Remove the 4 screws-B(T3x8), remove the Ballast unit and remove the Holder.

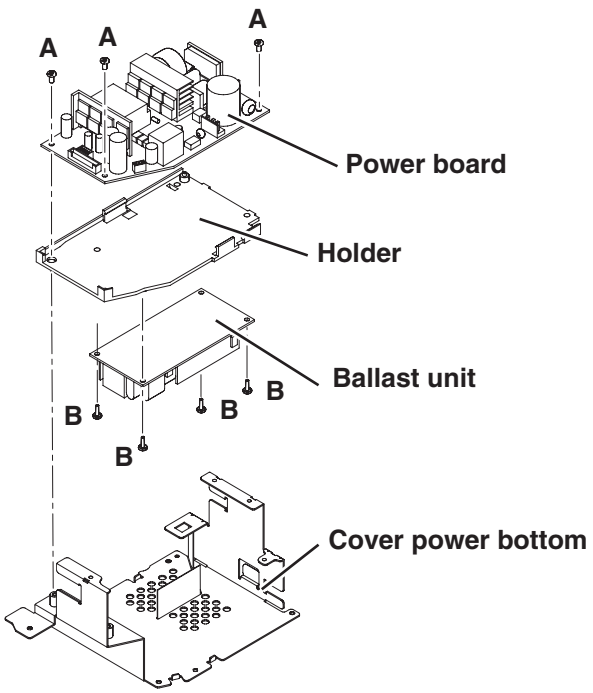


Fig. 7-4

8-1 Lamp duct ass'y removal.

1.Remove the screw-A(T3x8) and remove the Stopper.

2.Remove the 2 screws-B(T3x8) and remove the Lamp duct ass'y.

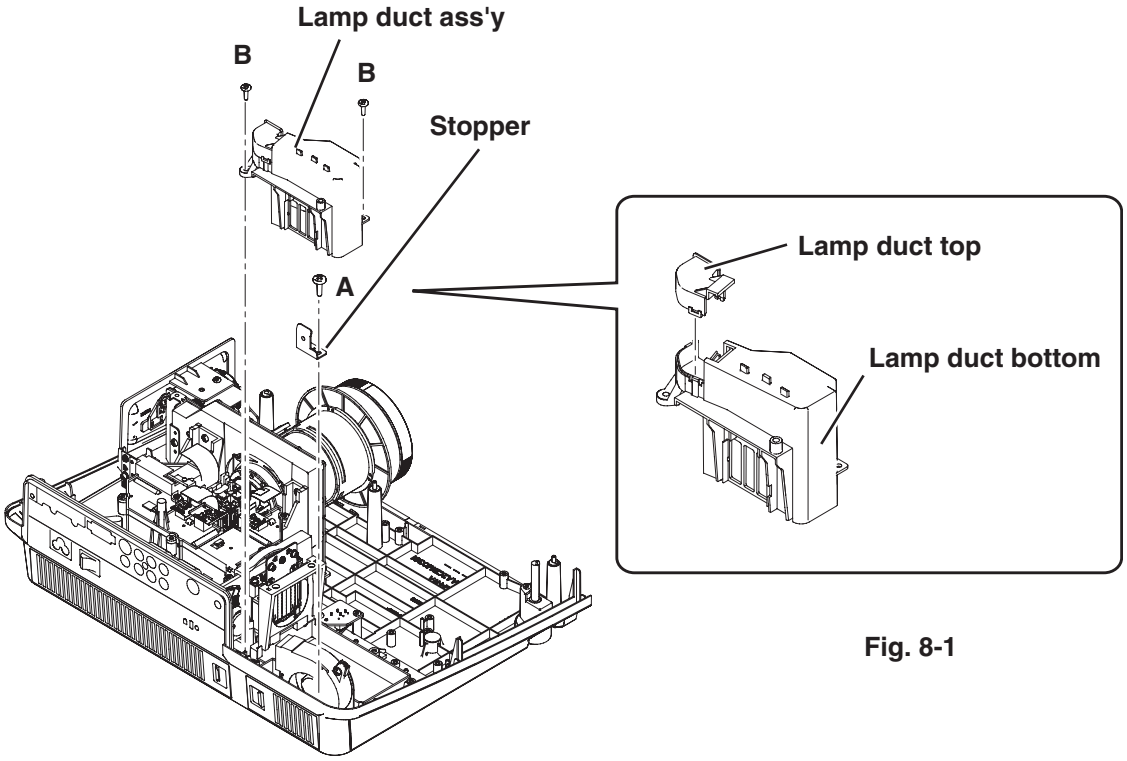


Fig. 8-1

8-2 Lamp cooling Fan(FN902) ass'y removal.

1.Remove the 2 screws-A(T3x8) and remove the Lamp cooling fan(FN902) ass'y.

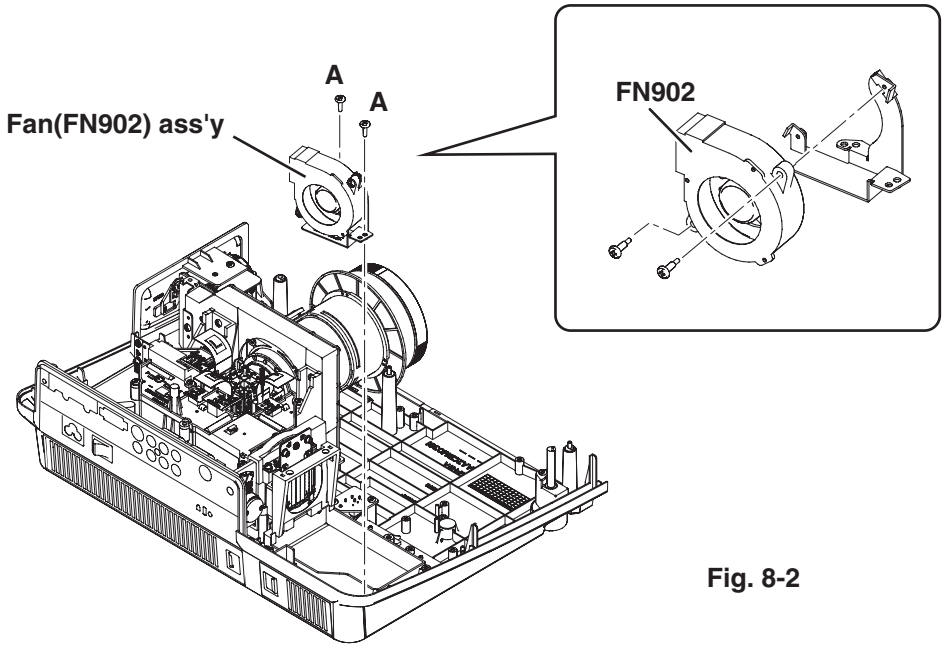


Fig. 8-2

9-1 Optical base lamp ass'y removal.

1. Remove the 3 screws-A(T3x8) and remove the Optical base lamp ass'y.

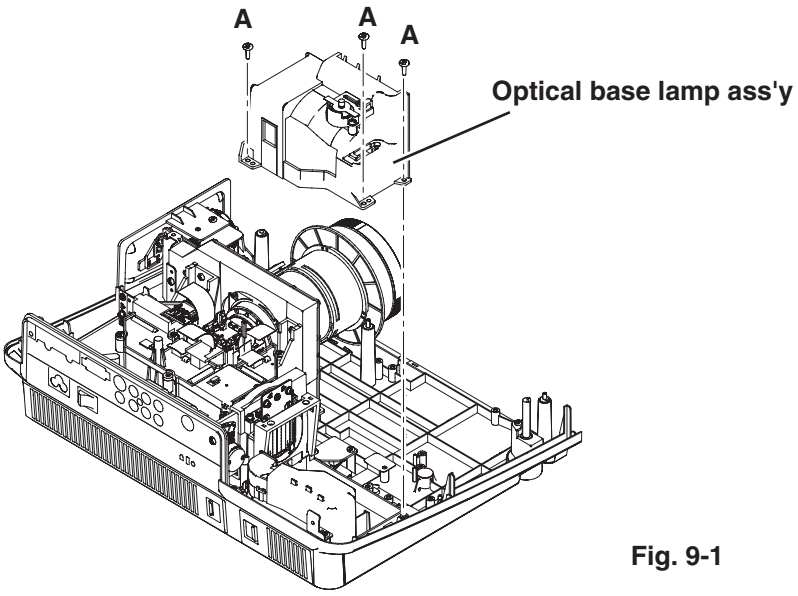


Fig. 9-1

9-2 Optical base lamp ass'y disassemblies.

1. Remove the screw-A(M3x6) and remove the thermal switch ass'y.
2. Remove the 2 screws-B(T3x8) and remove the Thermal switch(SW902).
3. Remove the 2 screws-C(T3x8), remove the Lamp exhaust duct and remove the Lamp exhaust filter.

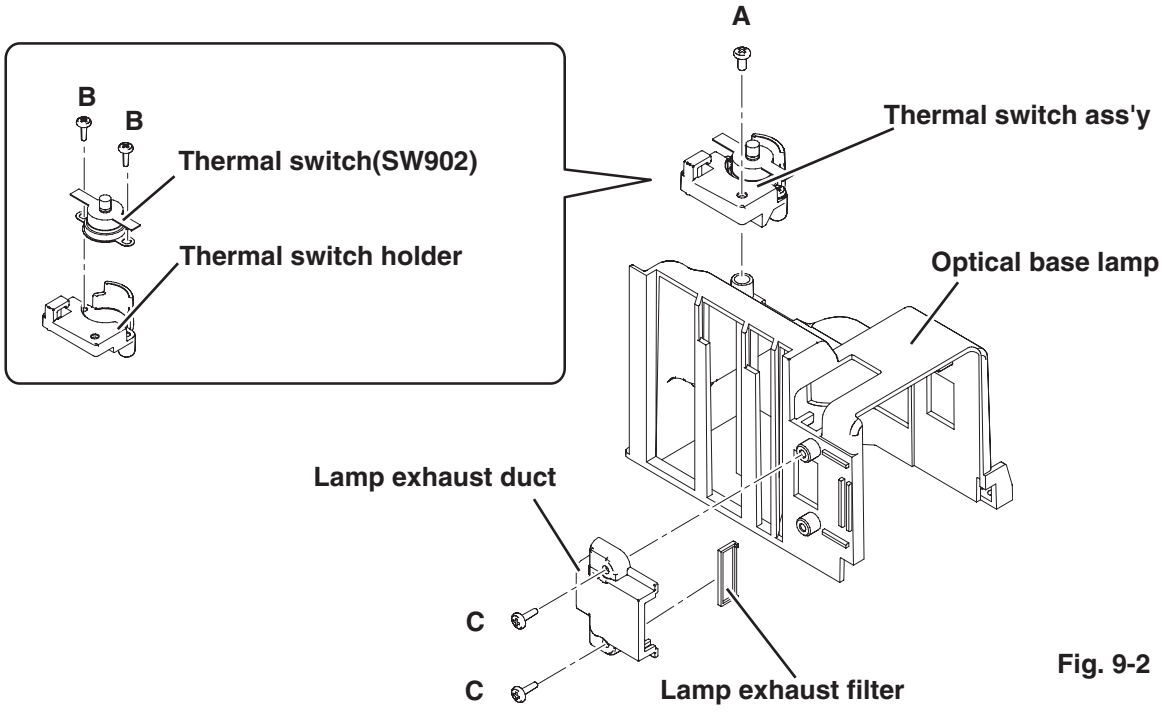


Fig. 9-2

10 Optical unit removal.

1.Remove the screw-A(M3x6), remove the 5 screws-B(T3x10), remove the Optical unit and remove the Spacer sheet bottom.

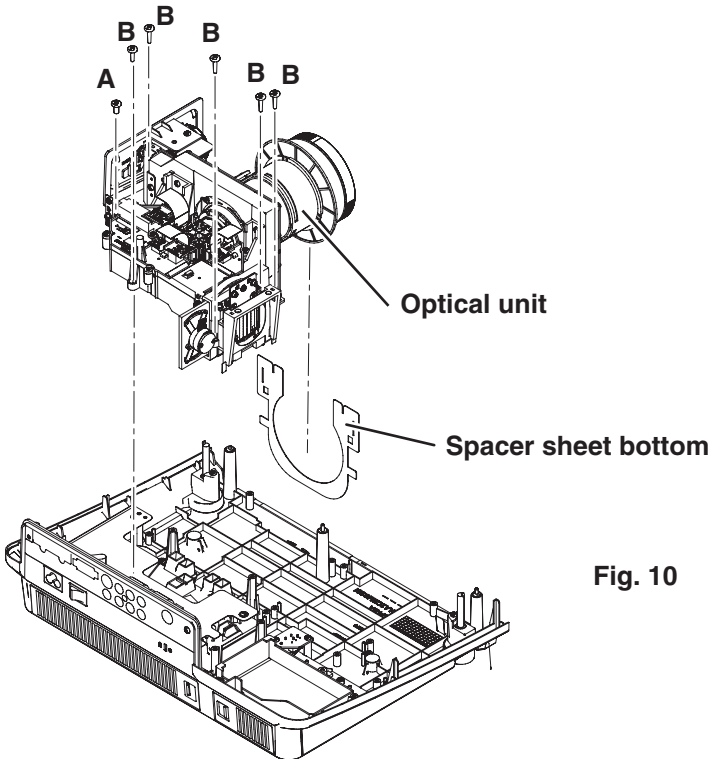


Fig. 10

11 Filter board removal.

1.Remove the screw-C(T3x10) and remove the spacer sheet.
2.Remove the 4 screws-A(T3x8), remove the screw-B(M3x6) and remove the Filter board.

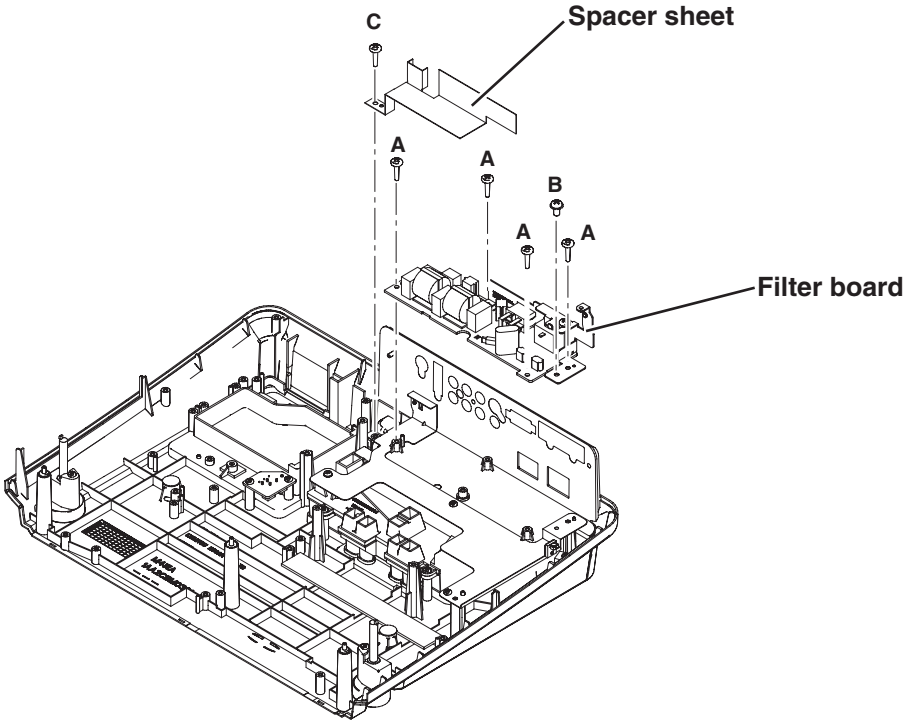


Fig. 11

12 Duct cover removal.

1.Remove the screws-A(T3x8), remove the screw-B(M2x4), and remove the Duct cover.

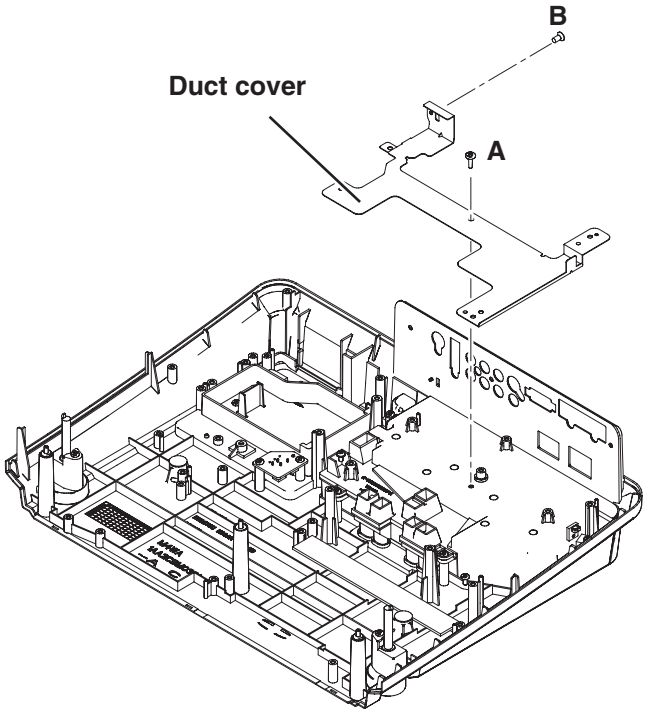


Fig. 12

13 LCD duct top removal.

1.Remove the 4 screws-A(T3x10) and remove the LCD duct top.

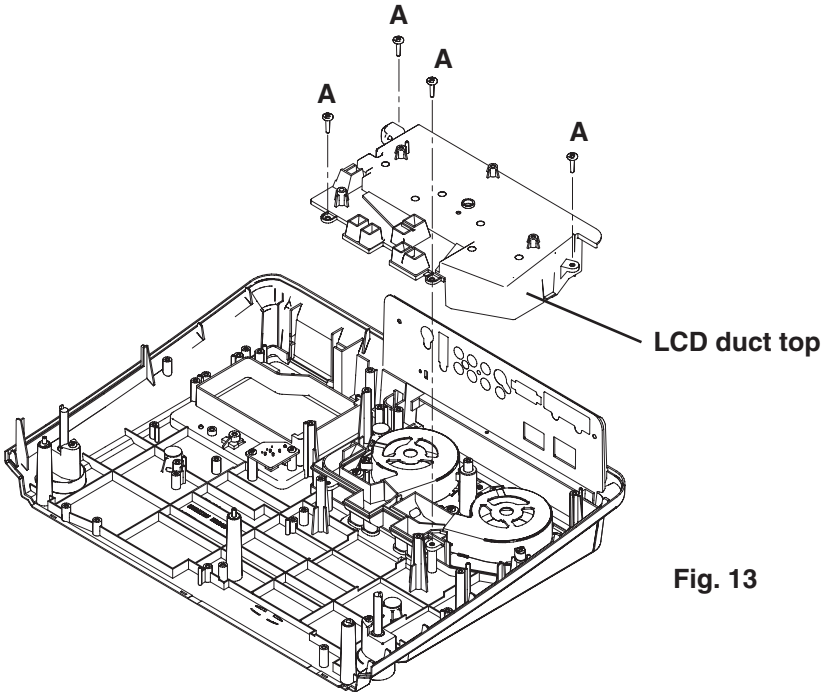


Fig. 13

14 Fans(FN904, FN905) removal.

1.Remove the 4 screws-A(M2x11.2) and remove the Fans(FN904 and FN905).

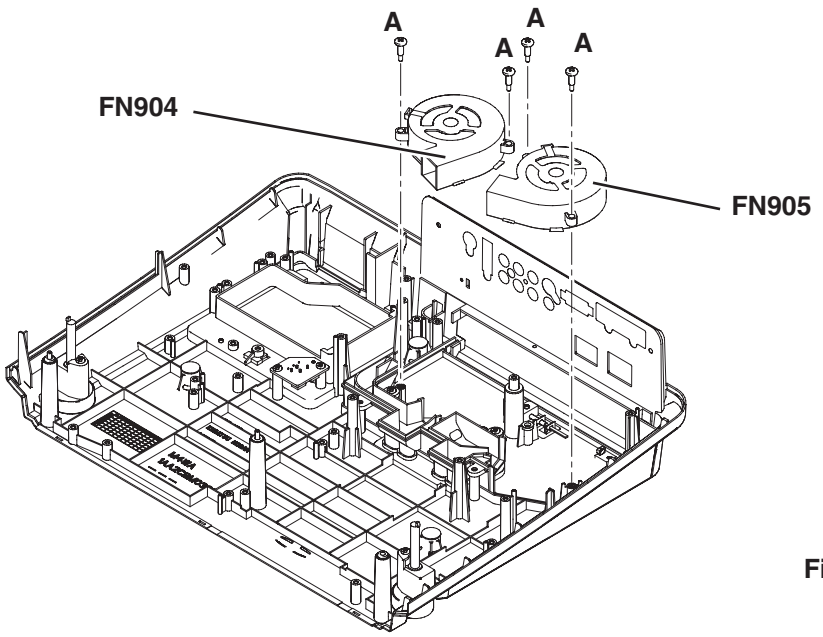


Fig. 14

15 LCD duct bottom removal.

1.Remove the 2 screws-A(T3x10) and remove the LCD duct bottom.

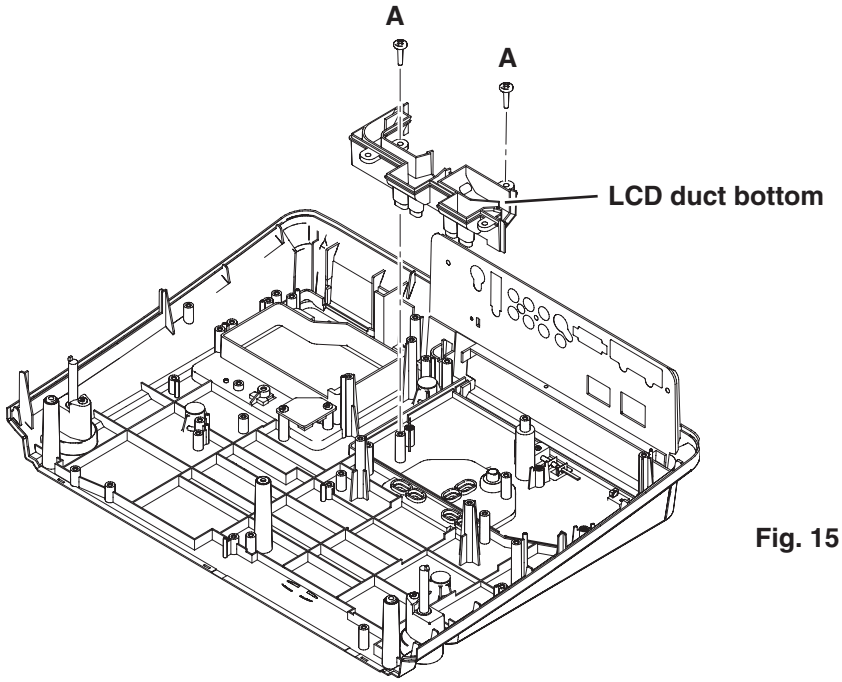


Fig. 15

16 Cabinet bottom ass'y disassemblies.

1.Remove the 2 screws-A(T3x8) and remove the Lamp sw board.
2.Remove the screw-B(M2x2) and remove the Thermistor ass'y(TH902).
3.Remove the 2 screws-C(T3x8) and remove the Adjusters(R & L).

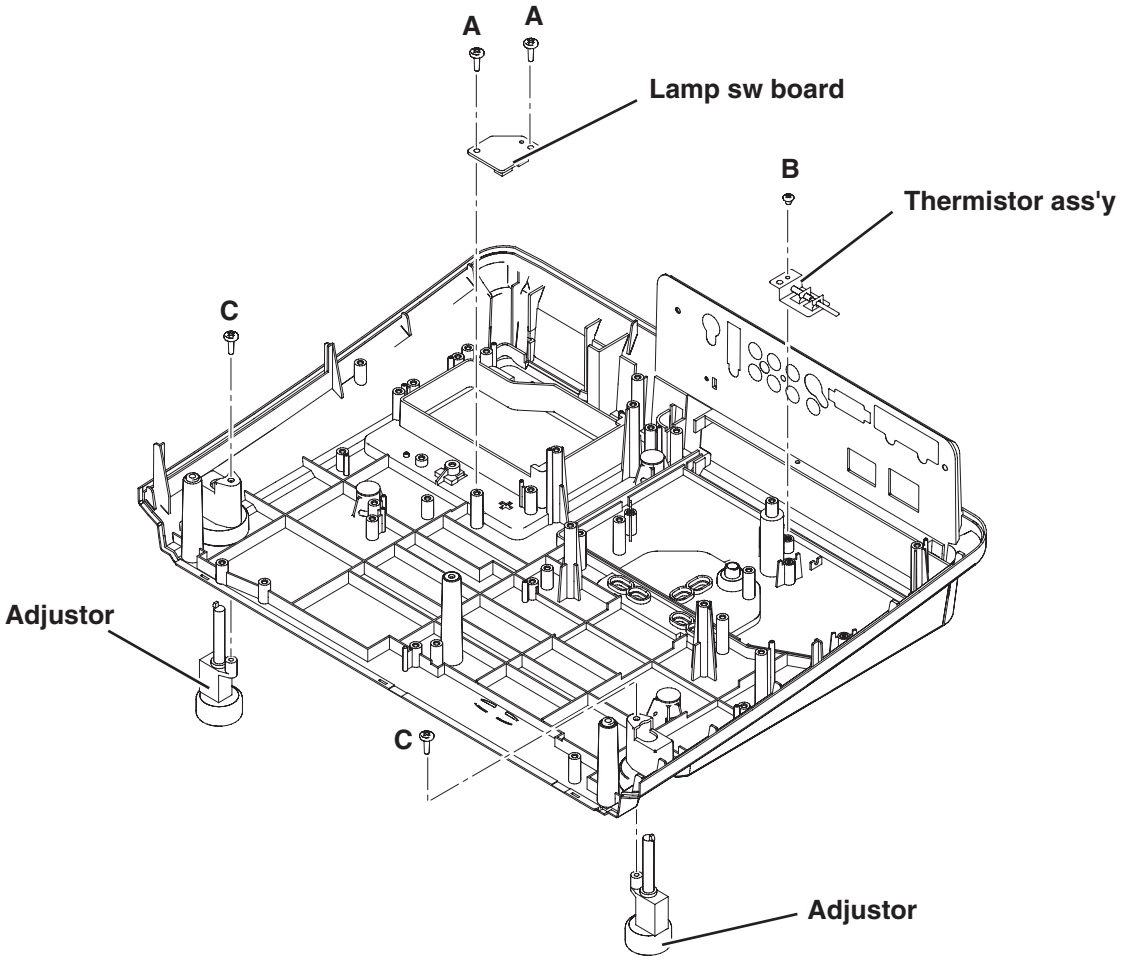


Fig. 16

17 Lamp ass'y and filters removal.

1. Loosen the screw-A and remove the Blower cover.
2. Loosen the screw-B and remove the Lamp cover.
3. Loosen the 2 screws-C and remove the Lamp ass'y.
4. Remove the Filter cover 1 and filter1.
5. Remove the Filter cover 2 and filter2.

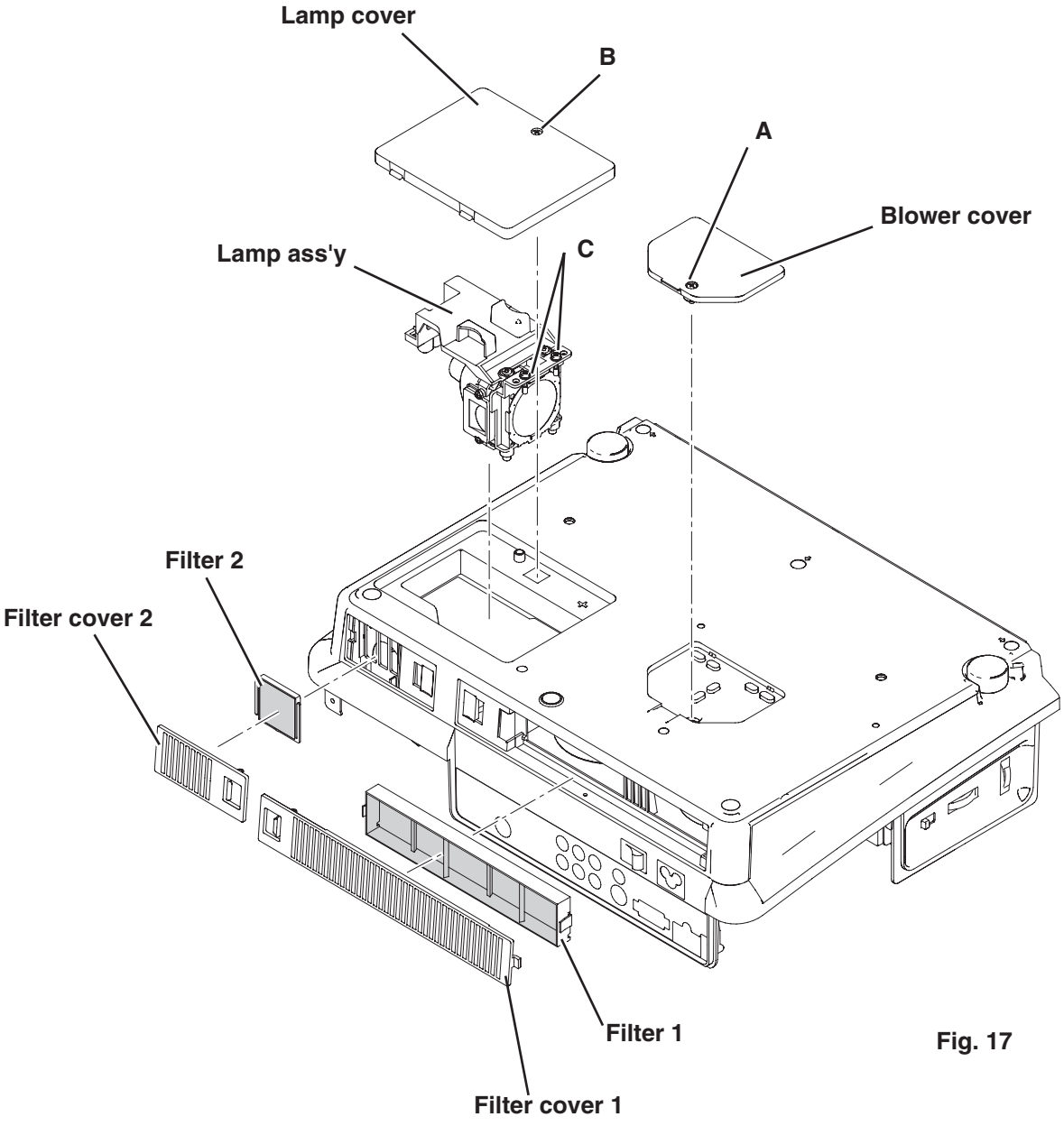


Fig. 17

■ Optical parts disassemblies

18 Lens shift panel removal.

1.Remove the screw-A(M3x6), remove the Lens shift panel and remove the Slide cover.

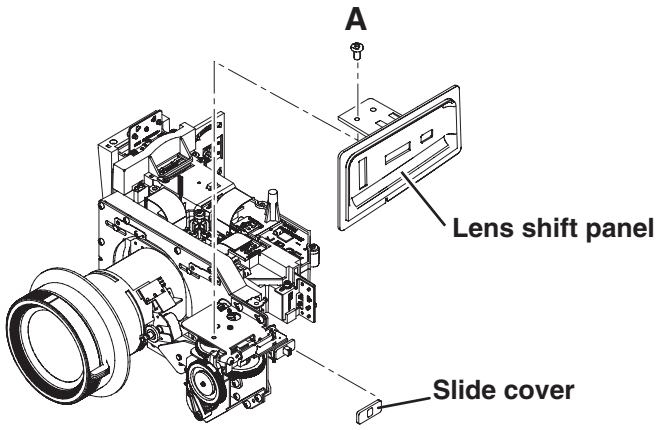


Fig. 18

19-1 Integrator lens ass'y removal.

1.Remove the 2 screws-A(M2.5x5) and remove the Integrator lens (IN) ass'y.

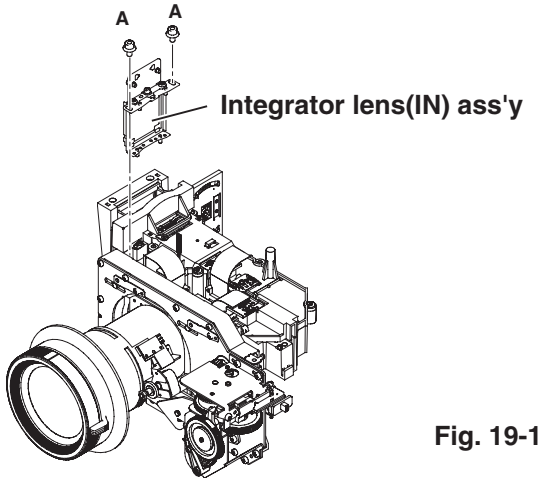


Fig. 19-1

19-2 Integrator lens (IN) disassemblies.

1.Remove the 2 screws-A(M2x2), remove the Holder-A, remove the Holder-B and remove the Integrator lens (IN).

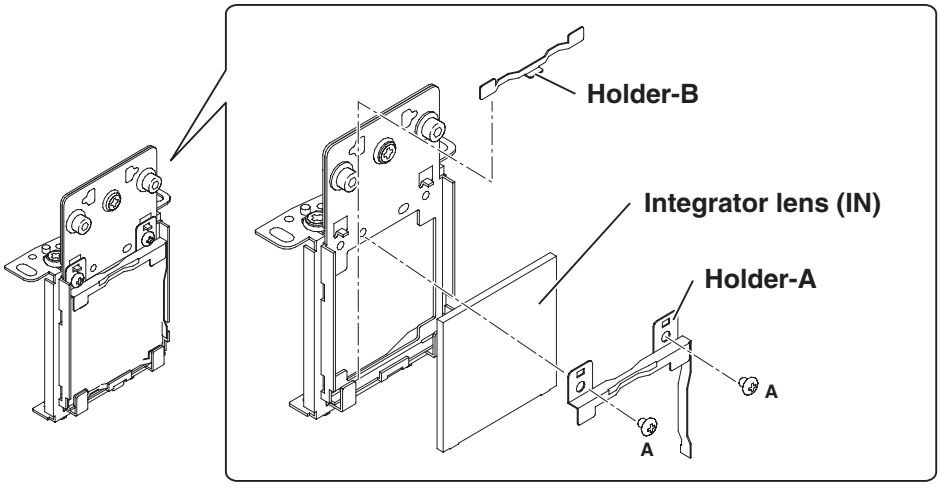


Fig. 19-2

20-1 LCD panel / Prism ass'y removal.

1.Unhook the stopper and remove the Spacer.
2.Remove the screw-A(M2x3) and remove the Shield cover.
3.Remove the 4 screws-B(M2.5x5) and remove the LCD panel/Prism ass'y.

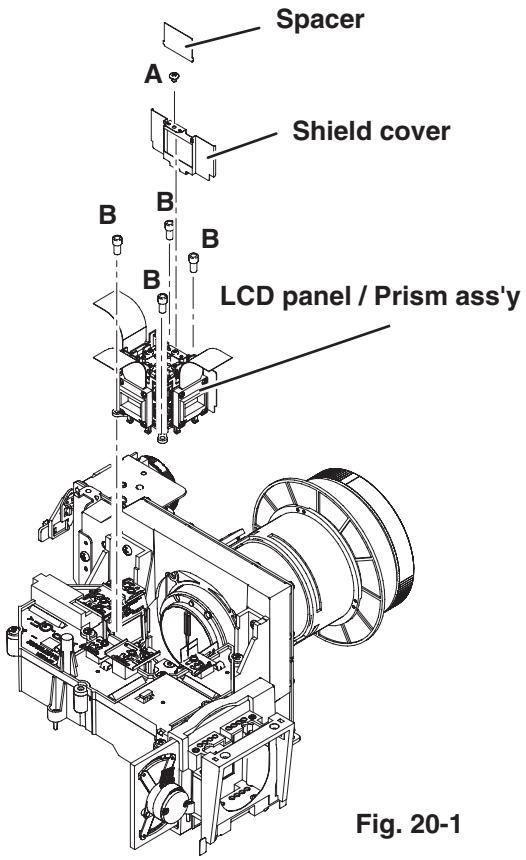
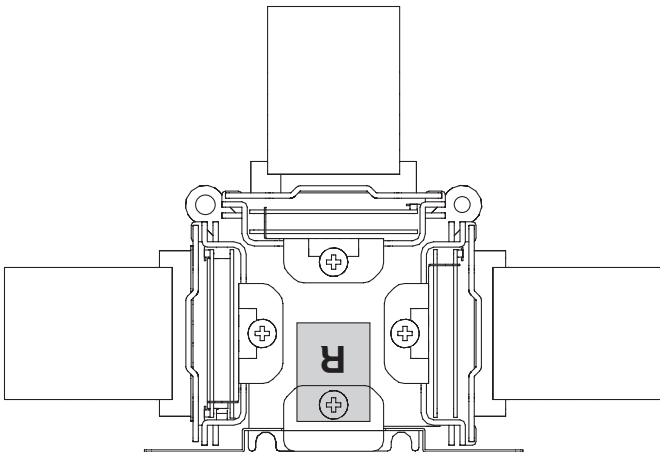


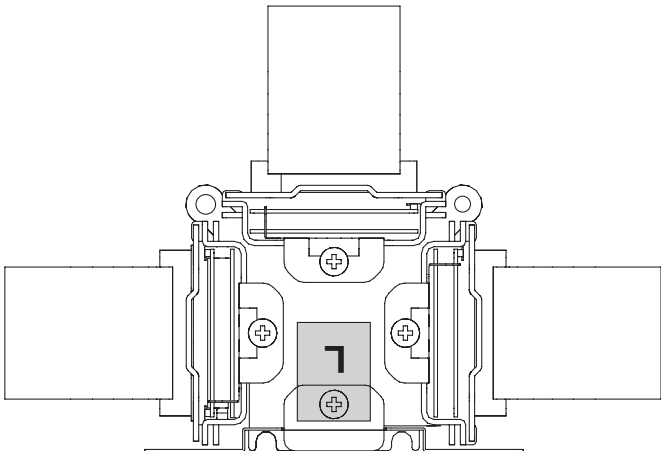
Fig. 20-1

Panel Type Check

There are 2 types combination of the LCD Panel/Prism Ass'y and the optical unit, named Type-L and Type-R.Since both have no compatibility, each type should be combined with the same type, and the specificparts should be used. If not, the poor optical characteristics may degrade the quality of a projected image.
When replacing the LCD Panel/Prism Ass'y,you need to take "Panel Type Check and Setting" on the Electrical Adjustment.
The gamma-characteristics is different between Type-L and Type-R LCD Panel/Prism Ass'y



LCD Panel / Prism ass'y (Type-R)



LCD Panel / Prism ass'y (Type-L)

20-2 LCD panel / Prism ass'y disassemblies.

1.Remove the screw-A(M2x3), remove the stopper and remove the Polarized glass (OUT-R).
2.Remove the screw-B(M2x3), remove the stopper and remove the Polarized glass (OUT-G).
3.Remove the screw-C(M2x3), remove the stopper, remove the Optical filter (WV) and remove the Polarized glass (OUT-B).

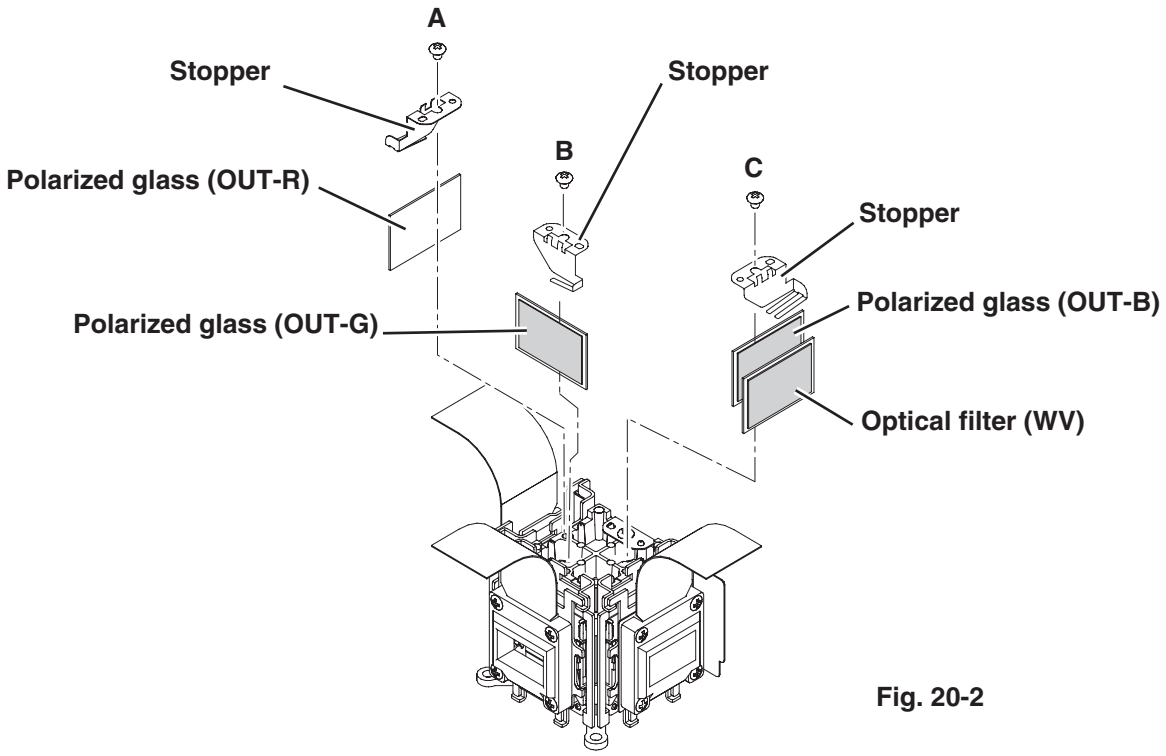


Fig. 20-2

Note; Do not replace the LCD panel separately otherwise it can not obtain proper picture. Do not touch the prism, the LCD panel and electrode of flexible cable.

IMPORTANT NOTICE on LCD Panel/Prism Ass'y Replacement

LCD panels used for this model can not be replaced separately. Do not disassemble the LCD Panel/Prism Ass'y.
These LCD panels are installed with precision at the factory. When replacing the LCD panel, should be replaced whole of the LCD panels and prism ass'y at once.
After replacing LCD Panel/Prism ass'y, please check the following adjustments.

- Check the "Integrator Lens Adjustment" and "Relay Lens Adjustment" following to chapter "Optical Adjustment".
- Check the "White Balance Adjustment" and "Common Center Adjustment" following to chapter "Electrical Adjustment".
- Check the white uniformity on the screen.

If you find the color shading, please adjust the white uniformity by using the proper computer and "Color Shading Correction" software supplied separately. The software can be ordered as follows;

COLOR SHADING CORRECTION

Service Parts No. 645 075 9611

21-1 Optical filter(WV-G) ass'y removal.

1.Remove the screw-A(M2x5) and remove the Optical filter(WV-G) ass'y.

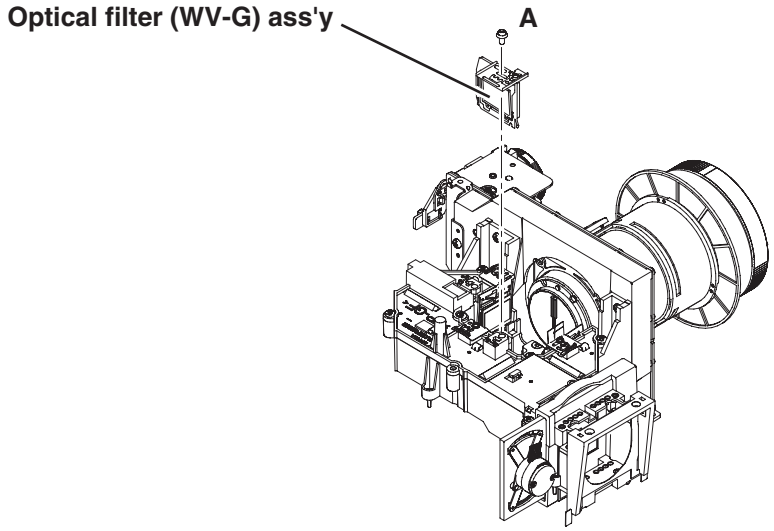


Fig. 21-1

21-2 Optical filter(WV-G) ass'y disassemblies.

1.Remove the screw-A(M2x5) and remove the Holder-A.

2.Remove the screw-B(M2x2), remove the Holder-B, remove the Holder-C and remove the Optical filter(WV-G).

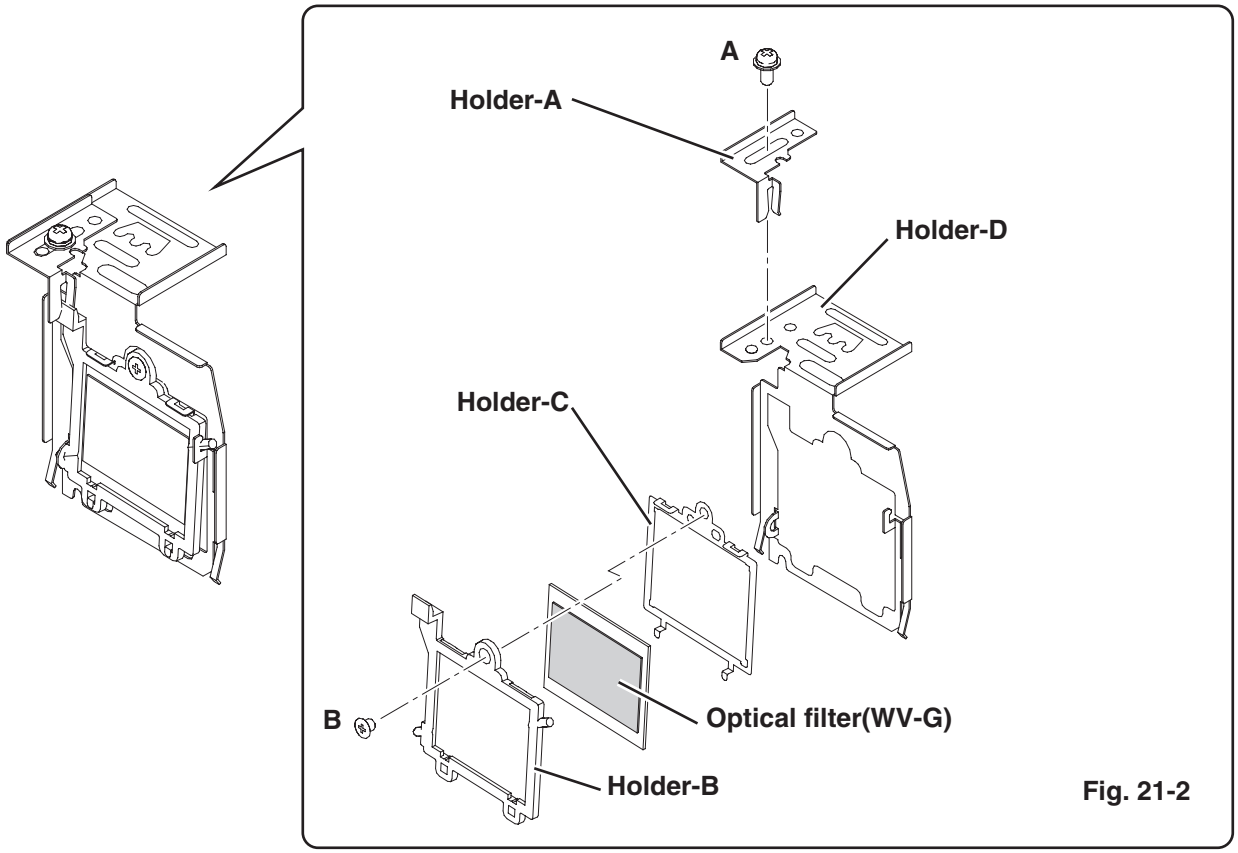


Fig. 21-2

22-1 Polarized glass ass'y (IN-R) removal.

1.Remove the screw-A(M2x5) and remove the Polarized glass ass'y (IN-R).

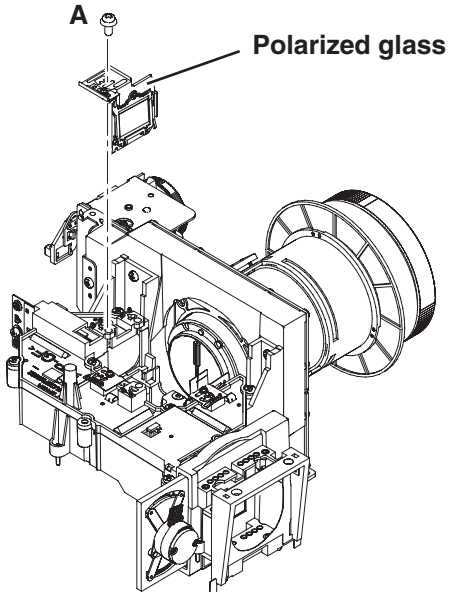


Fig. 22-1

22-2 Polarized glass(IN-R) removal.

1.Remove the screw-A(M2x5) and remove the Holder-A.

2.Remove the screw-B(M2x2), remove the Holder-B, remove the Holder-C and remove the Polarized glass(IN-R).

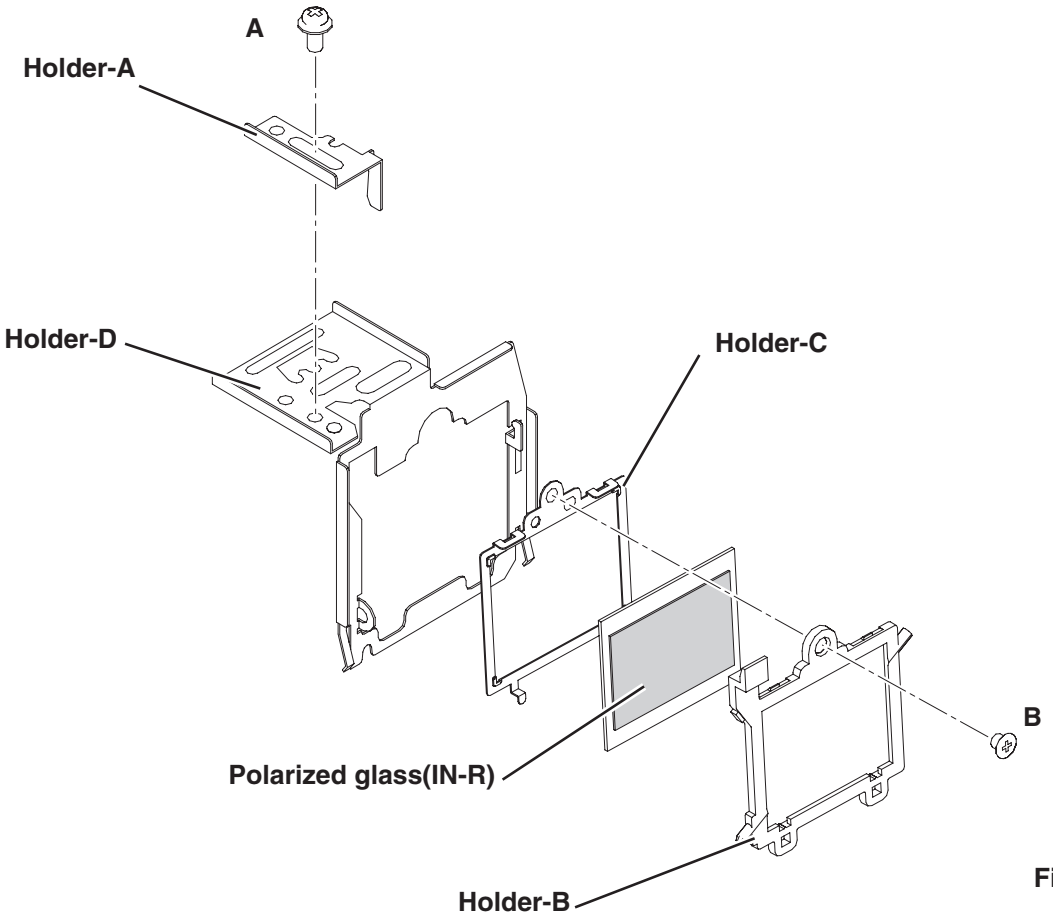


Fig. 22-2

23 Polarized glasses removal.

1.Remove the screw-A(M2x5) and remove the Polarized glass ass'y (IN-G).
2.Remove the screw-B(M2x5) and remove the Polarized glass ass'y (IN-B).

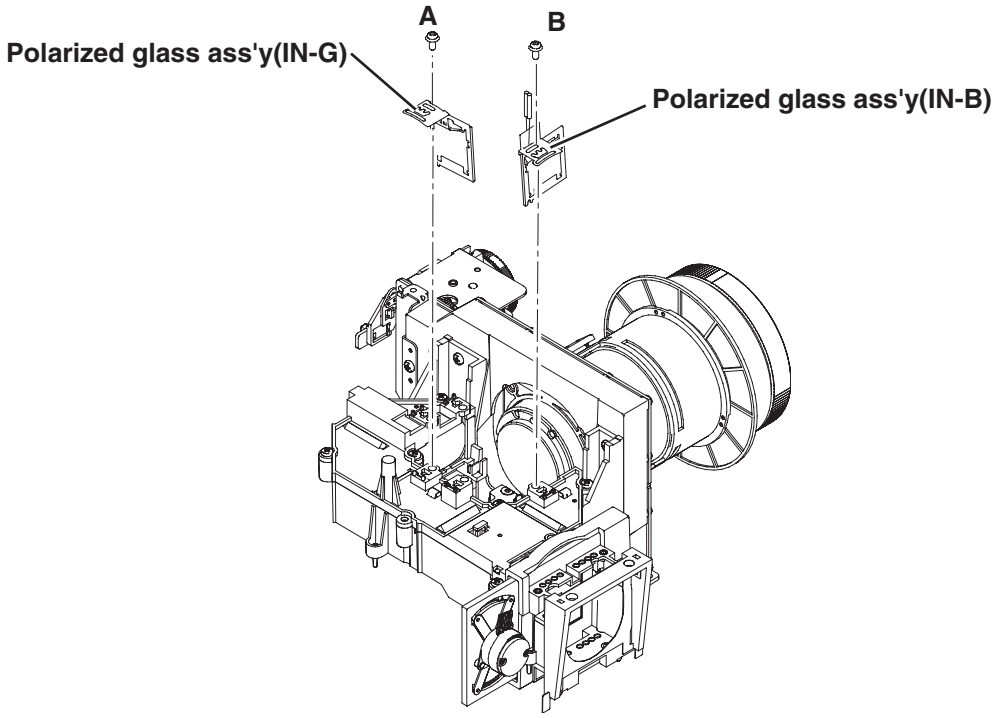


Fig. 23-a

Polarized Glass ass'y (IN-G)

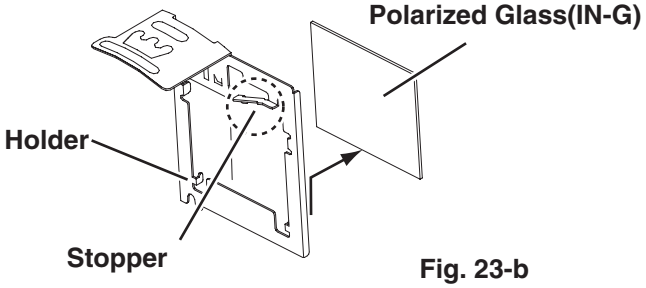
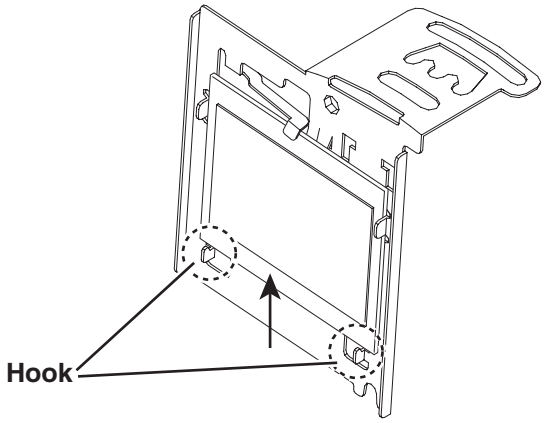
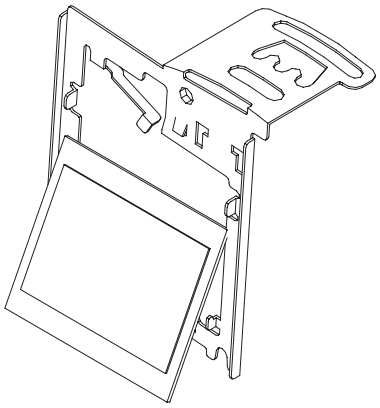


Fig. 23-b



Push the Polarized glass upward, unhook the holder and remove the Polarized glass.



Polarized Glass ass'y (IN-B)

Remove the screw-A and remove the Thermistor ass'y.

Push the Polarized glass upward, unhook the holder and remove the Polarized glass. (Refer to P35)

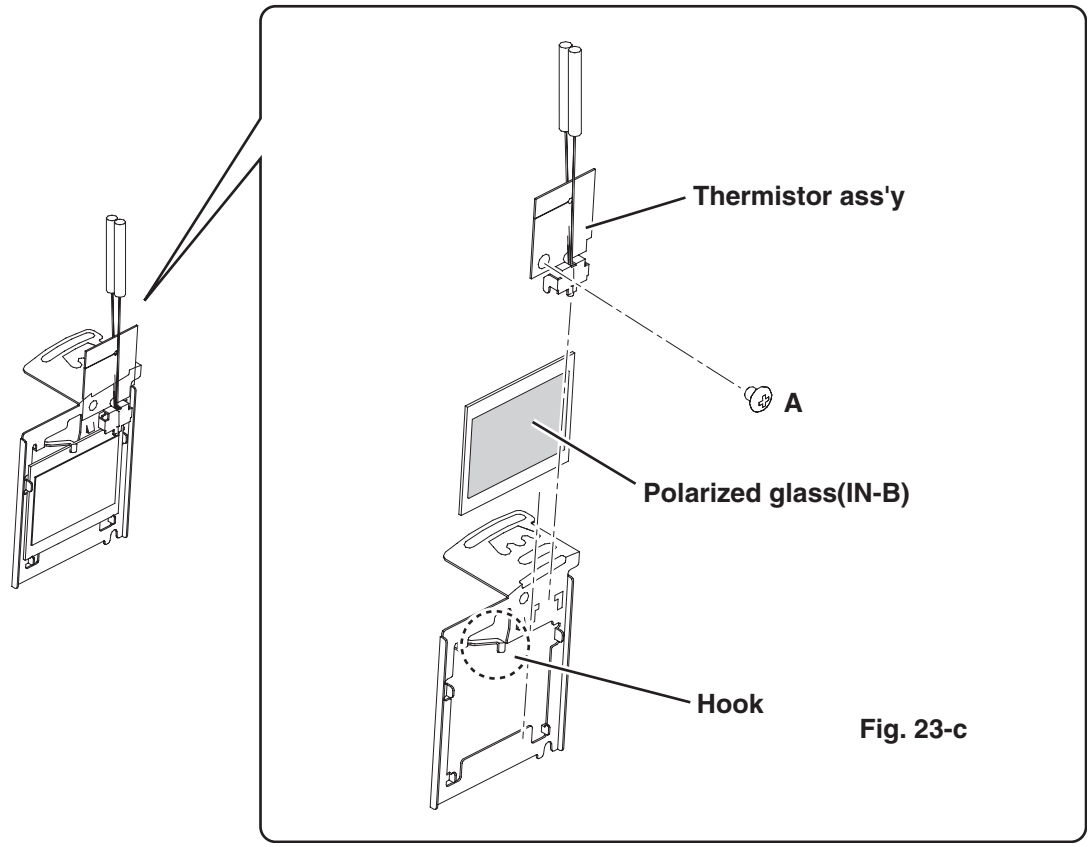


Fig. 23-c

Remove the Thermistor(TH901).

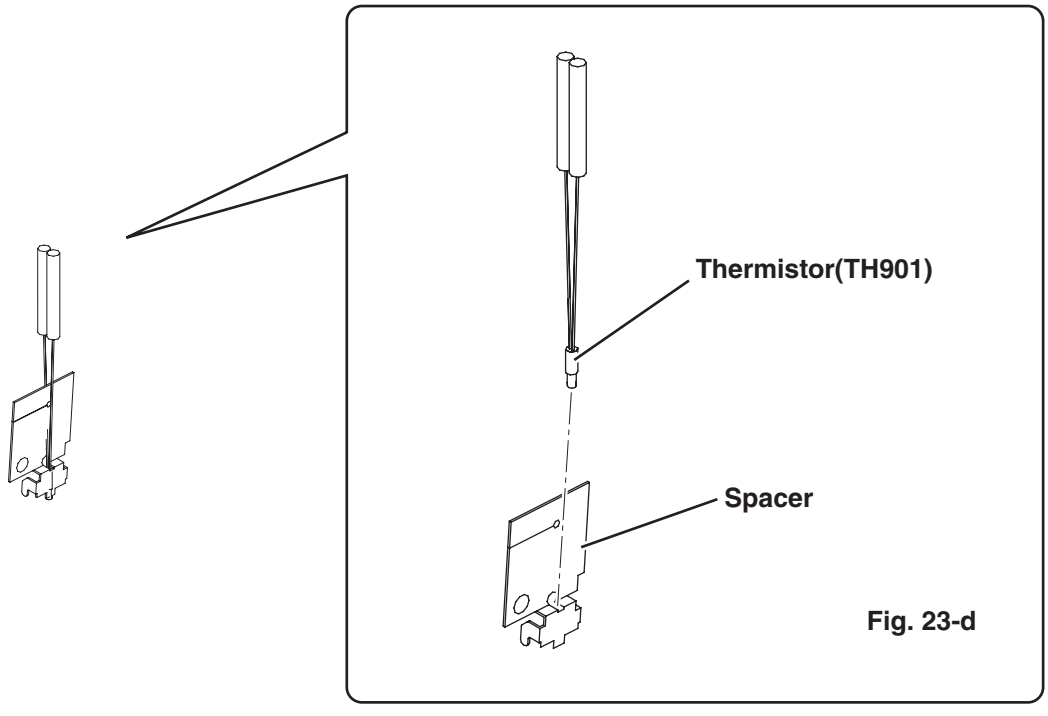
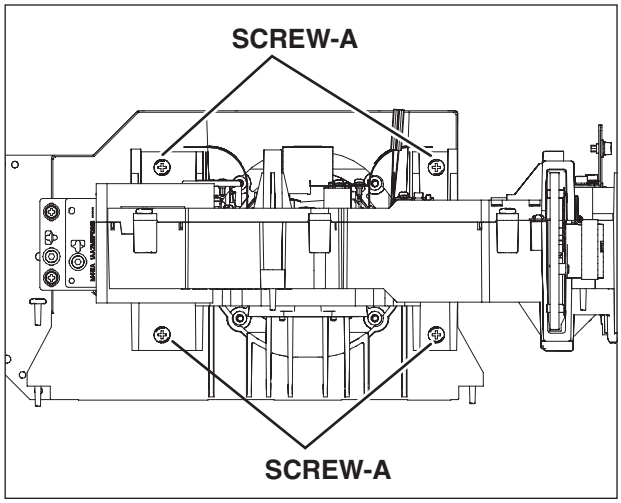


Fig. 23-d

24 Projection lens ass'y removal.

1.Remove the 4 screws-A(M3x6) and remove the Projection lens ass'y.



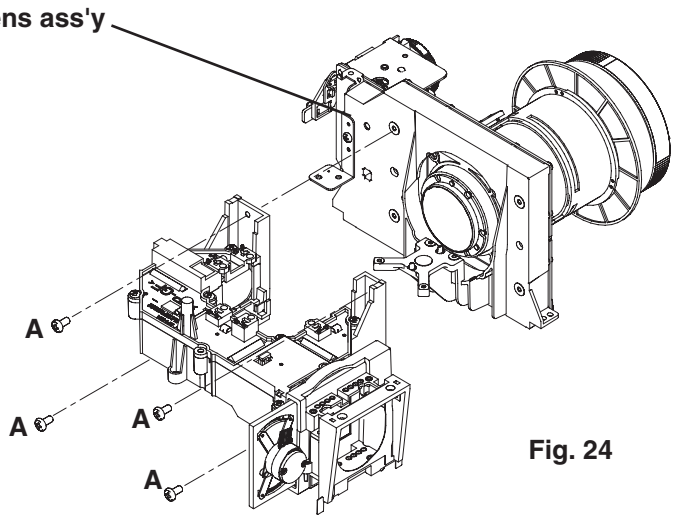


Fig. 24

25 Projection lens removal.

1.Remove the 4 screws-A(M2.6x6) and remove the Projection lens.
2.Remove the screw-B(M3x6) and remove the Mounting main board .

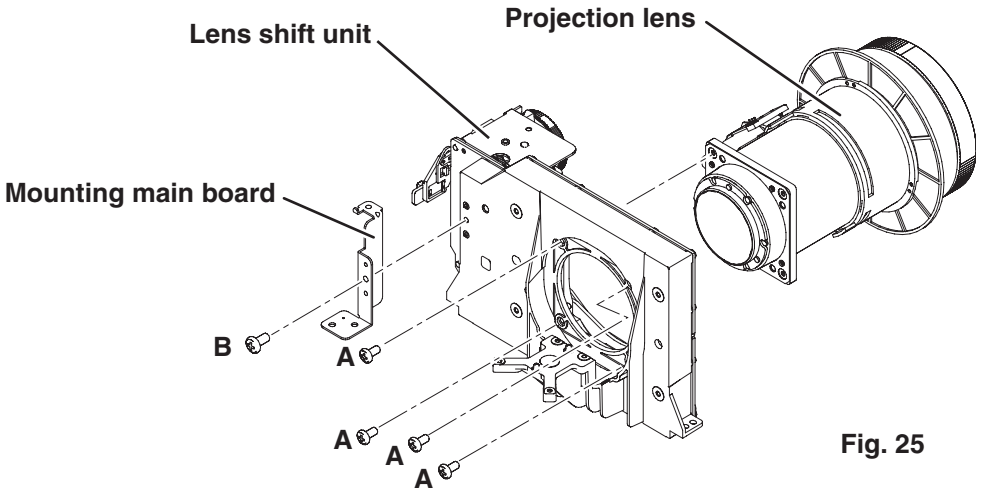


Fig. 25

26 Optical base top removal.

1.Remove the 7 screws-A(T3x10) and remove the Optical base top.

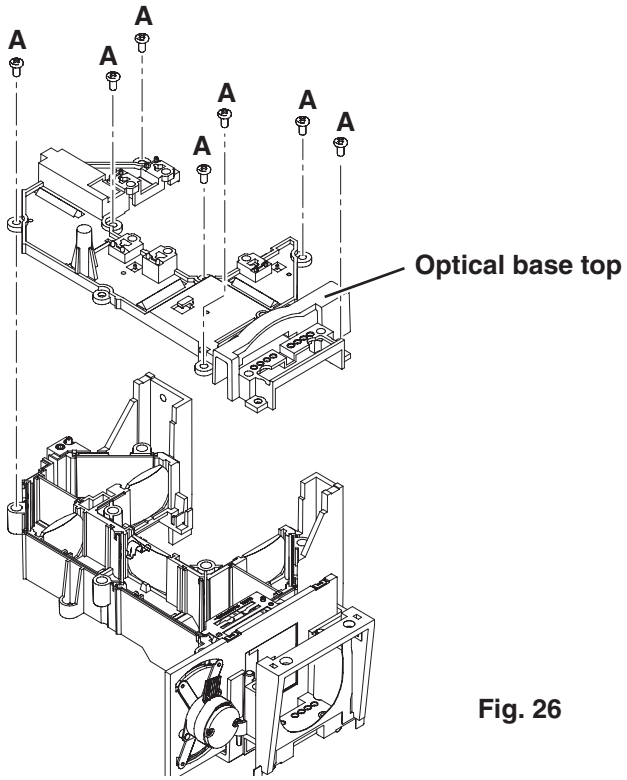


Fig. 26

27-1 Lamp iris unit and Relay lens ass'y removal.

1.Remove the 2 screws-A(M2x2), remove the Shield plate and remove the Lamp iris unit.
2.Remove the screw-A(M2.5x5) and remove the Relay lens (OUT) ass'y.

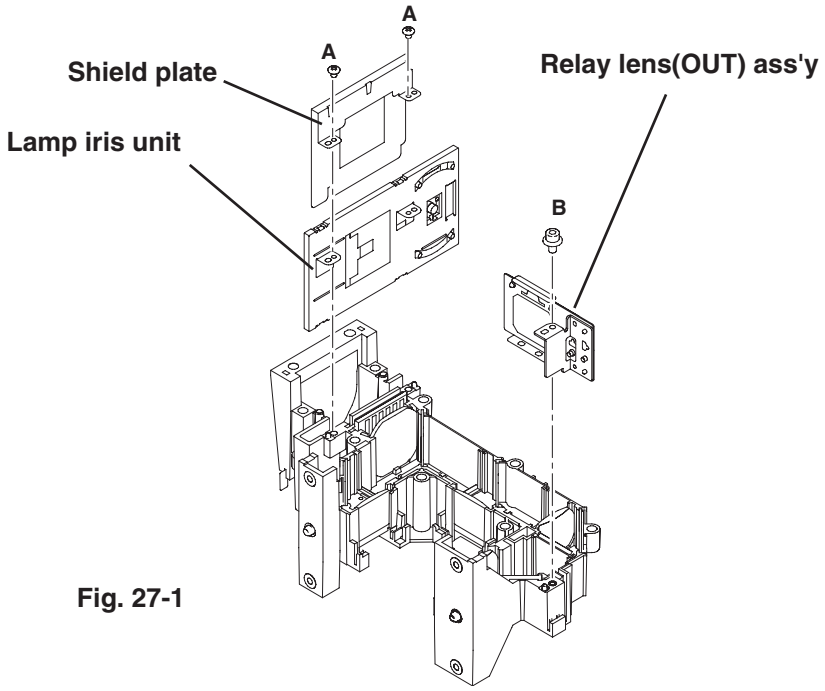


Fig. 27-1

27-2 Relay lens (OUT) ass'y disassemblies.

1.Remove the screw-A(M2x2), remove the Holder and remove the Relay lens (OUT).

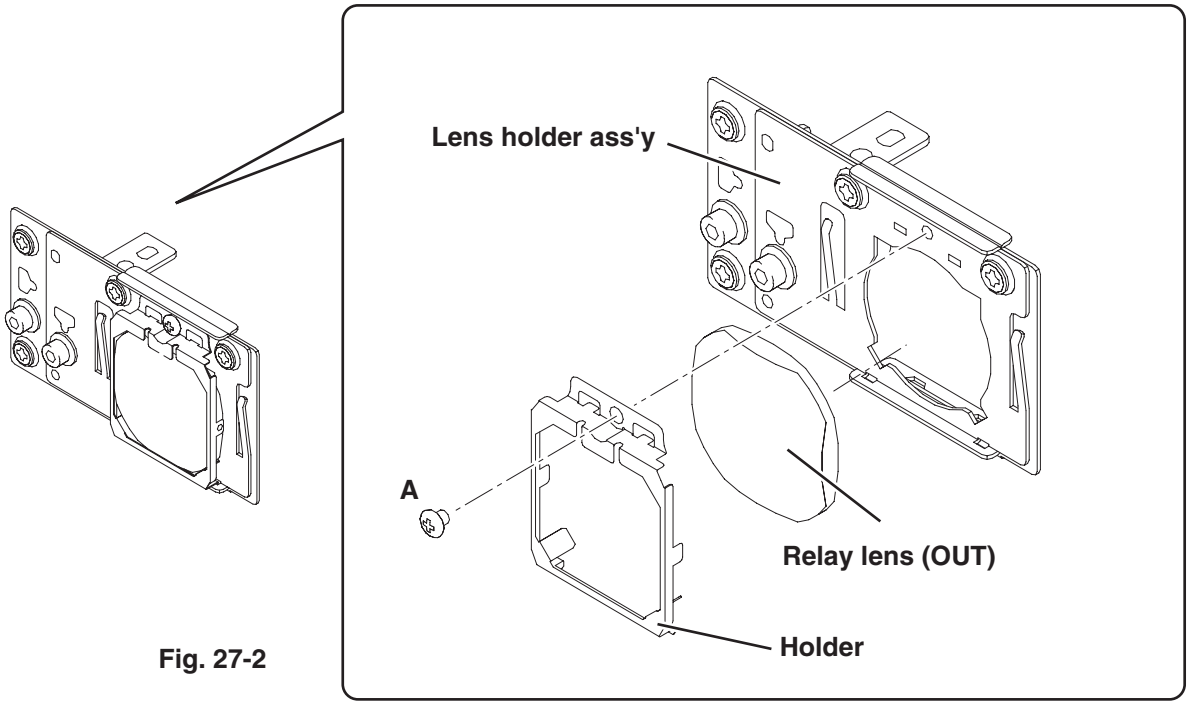


Fig. 27-2

28-1 Condenser Lenses removal.

1.Remove the 2 stopperes and remove the Condenser lens(OUT).
2.Remove the Relay lens(in) and remove the Condenser lens(R, G, B).

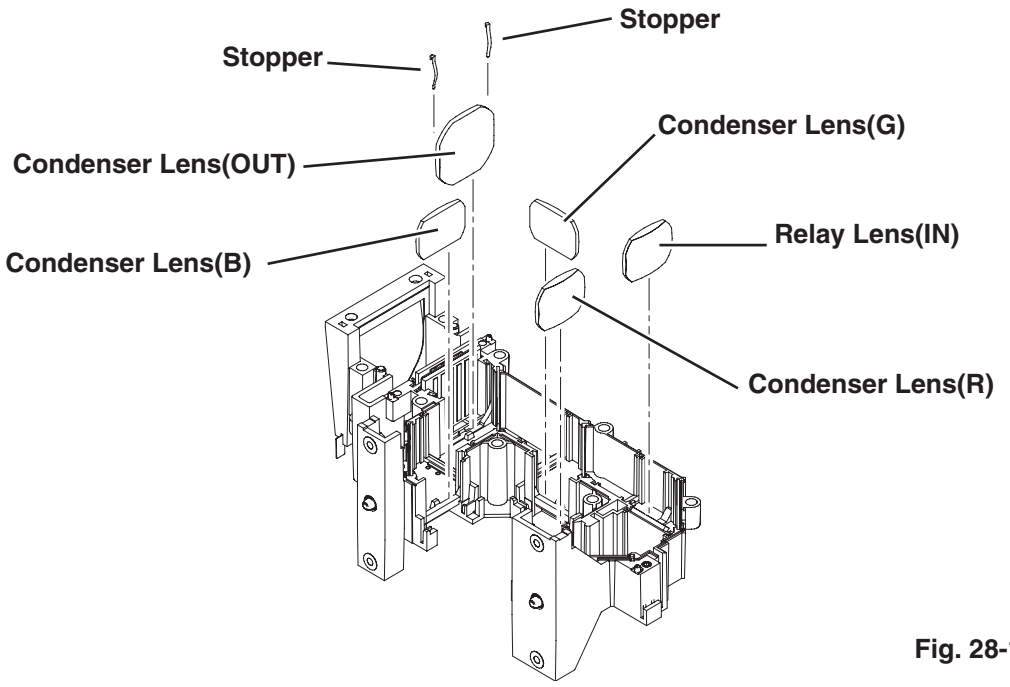


Fig. 28-1

28-2 PBS and Integratoe lens (OUT) removal.

1.Remove the 3 stopperes and remove the Integrator lens(OUT).

2.Remove the stopper, shield plate and remove the PBS.

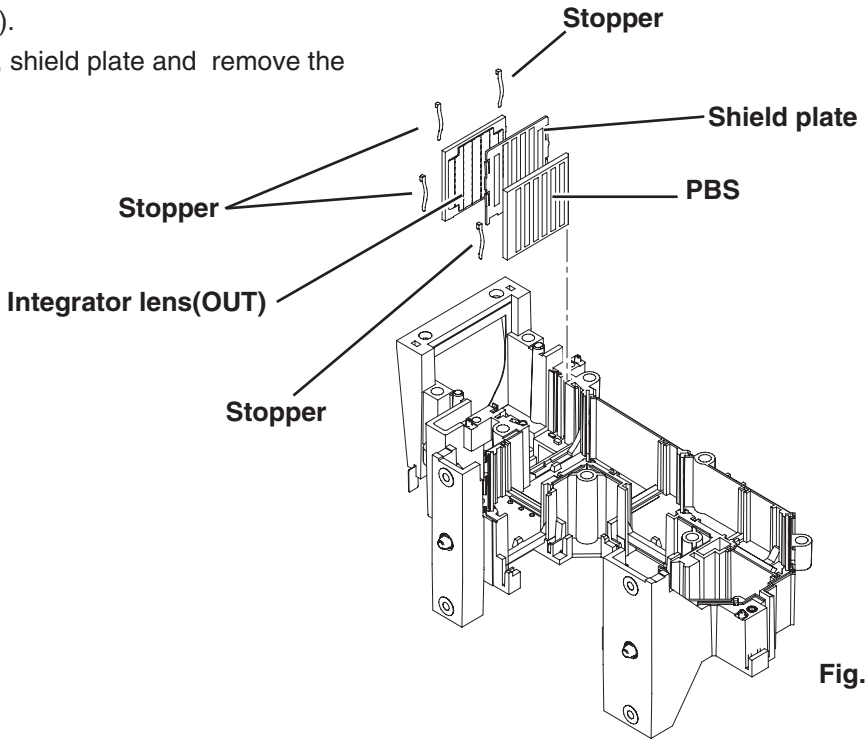


Fig. 28-2

28-3 Mirrores removal.

1.Remove the stopperes and remove the mirrores.

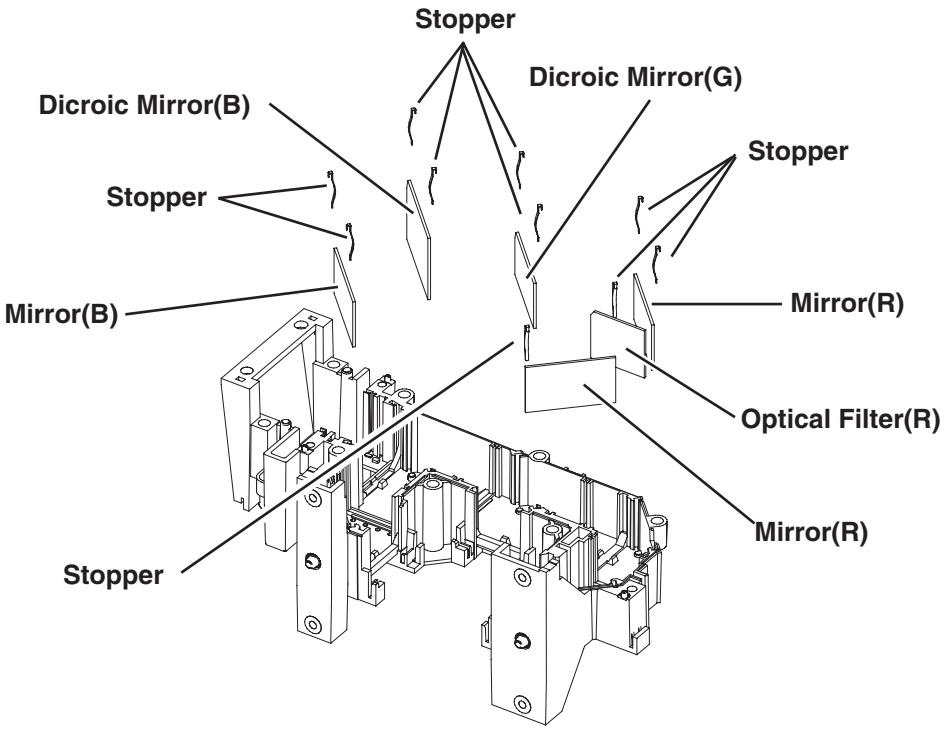
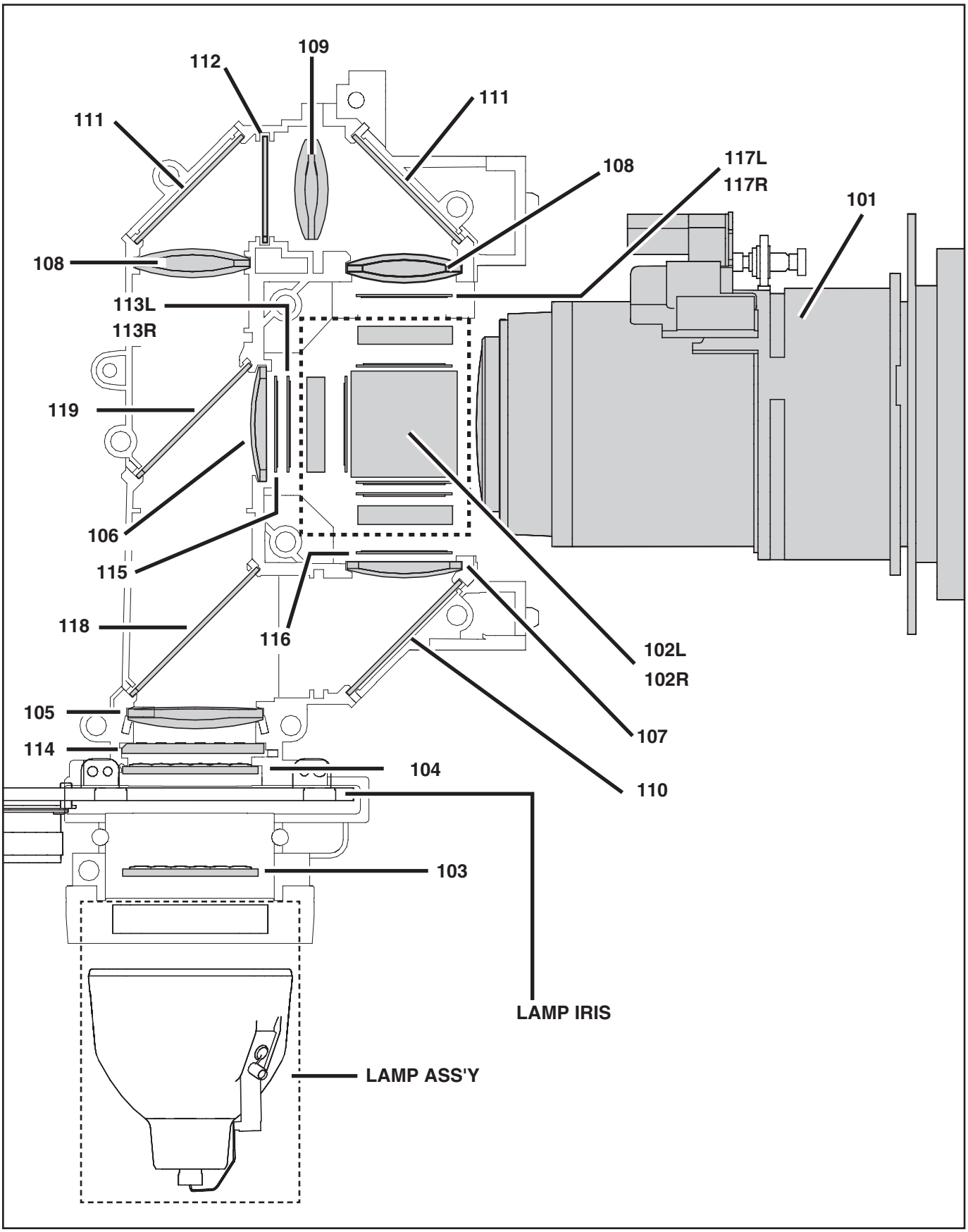


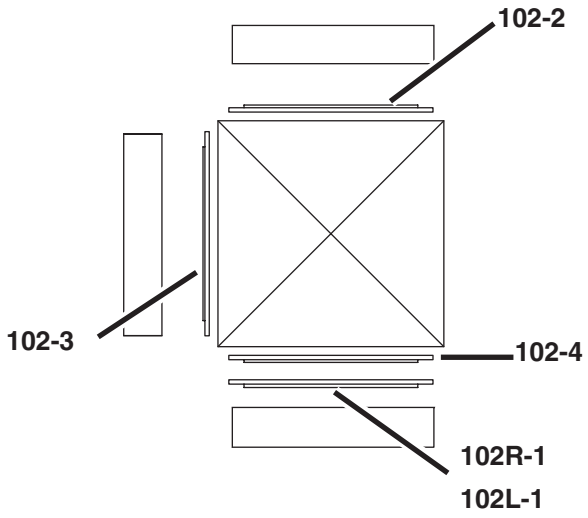
Fig. 28-3

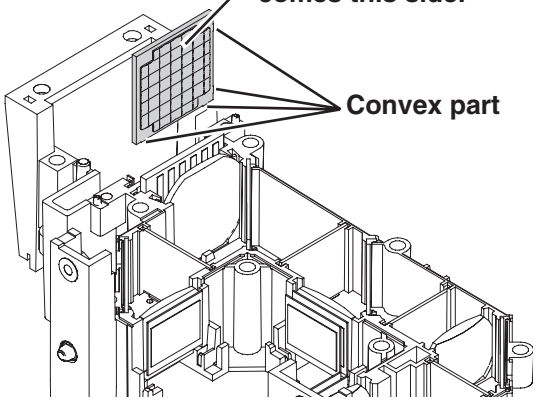
● Optical parts location and direction



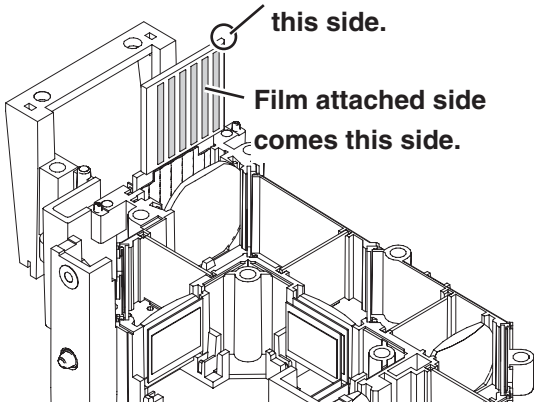
101	LENS, PROJECTION
102R	ASS'Y,LCD PNL/ PRISM R --- Type R
102L	ASS'Y, LCD PNL/ PRISM L --- Type L
103	LENS, INTEGRATOR(IN)
104	LENS, INTEGRATOR(OUT) UV
105	LENS, CONDENSER(OUT)
106	LENS, CONDENSER(G)
107	LENS, CONDENSER(B)
108	LENS, CONDENSER(R)
109	LENS, RELAY(OUT)
110	MIRROR(B)
111	MIRROR(R)
112	OPTICAL FILTER(R)
113R	OPTICAL FILTER(WV-KC)GL--- Type R
113L	OPTICAL FILTER(WV-KC)GR --- Type L
114	PRISM(PBS)
115	POLARIZED GLASS(IN/G)
116	POLARIZED GLASS(IN/B)
117R	POLARIZED GLASS(IN/R) --- Type R
117L	POLARIZED GLASS(IN/R) --- Type L
118	DICHROIC MIRROR(B)
119	DICHROIC MIRROR(G)

102R	ASS'Y, LCD PNL/PRISM --- Type R
102R-1	OPTICAL FILTER(WV-QZ) --- Type R
102-2	POLARIZED GLASS(OUT/R)
102-3	POLARIZED GLASS(OUT/G)
102-4	POLARIZED GLASS(OUT/B)
102L	ASS'Y, LCD PNL/PRISM --- Type L
102L-1	OPTICAL FILTER(WV-QZ) --- Type L
102-2	POLARIZED GLASS(OUT/R)
102-3	POLARIZED GLASS(OUT/G)
102-4	POLARIZED GLASS(OUT/B)

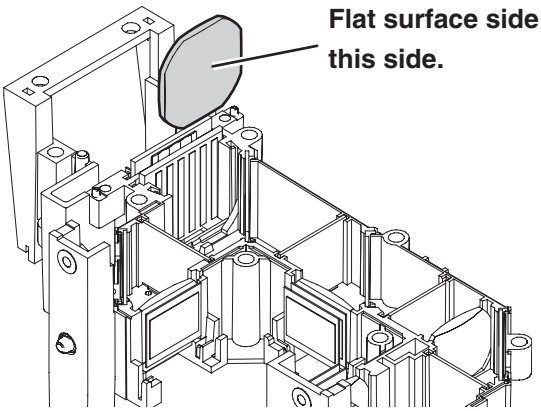




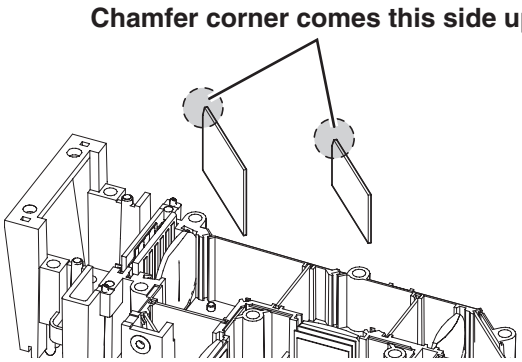
INTEGRATOR LENS (OUT)



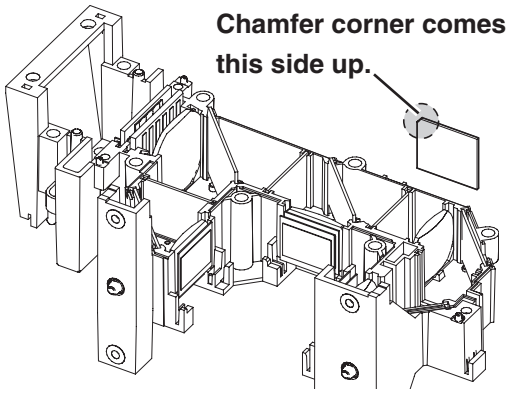
PBS



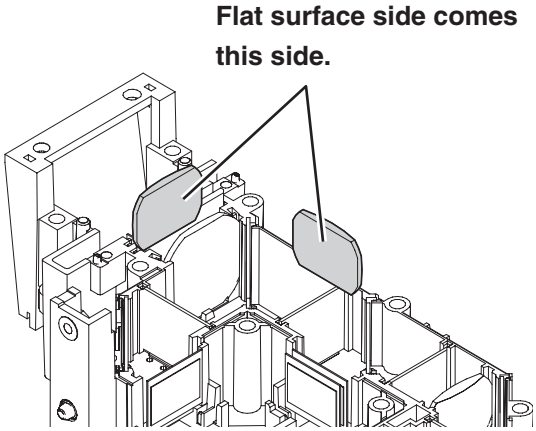
CONDENSER LENS (OUT)



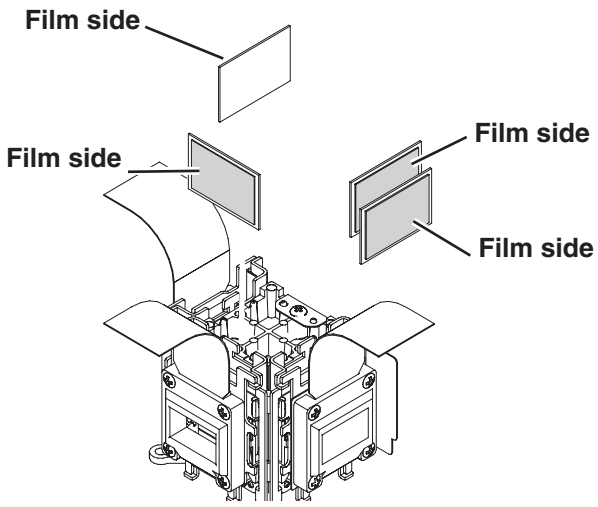
DICHROIC MIRROR



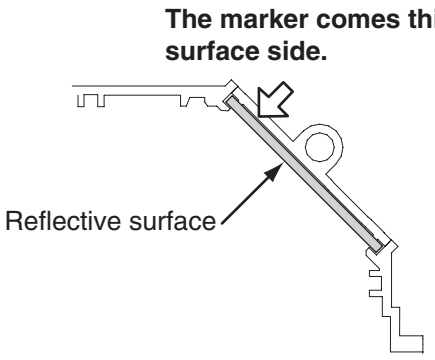
OPTICAL FILTER (R)



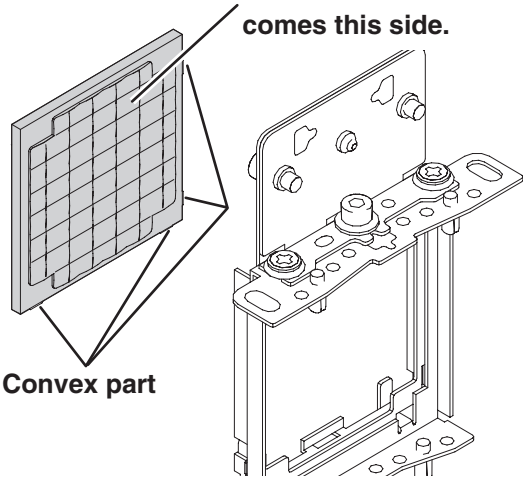
CONDENSER LENS (G, B)



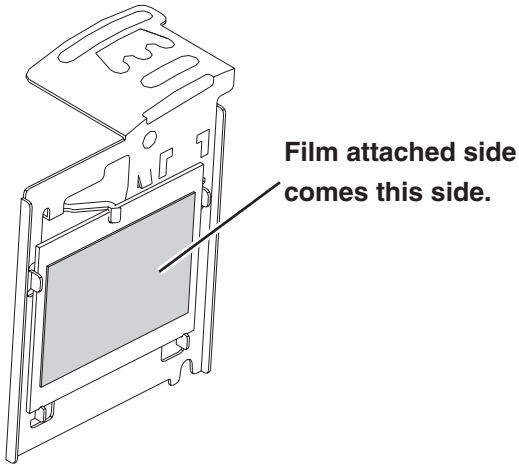
LCD PANEI/PRISM ASS'Y



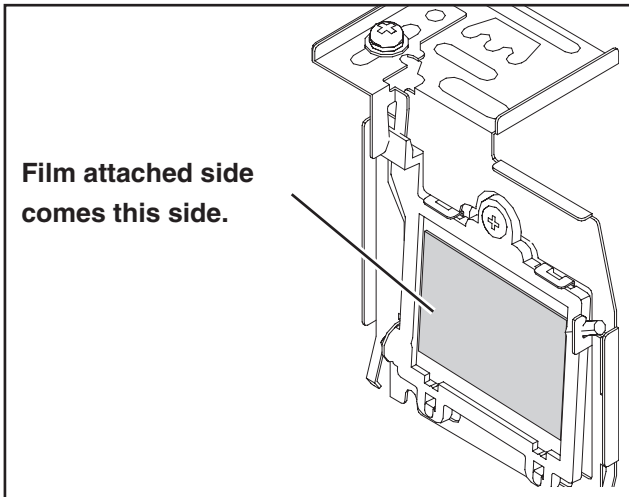
MIRROR



INTEGRATOR LENS (IN)



POLARIZED GLASS(G,B-IN)



OPTICAL FILTER(WV-G)
POLARIZED GLASS(R-IN)

■ Adjustments After Parts Replacement

● : Adjustment necessary ❍ : Check necessary

		Disassembly / Replaced Parts									
		LCD/ Prism Ass'y	Integrator Lens	Relay Lens	Polarized glass			Optical filter	Power Board	Main Board	Lamp Iris
					R	G	B	G			
Optical Adjustments	Contrast Adjustment										
	R-Contrast adjustment(Polarized glass)	❍			●						
	G-Contrast adjustment(Polarized glass)	❍				●					
	B-Contrast adjustment(Polarized glass)	❍					●				
	G-Contrast adjustment(Optical filter)	❍				●		●			
	Integrator Lens Adjustment	❍	●								
	Relay Lens Adjustment	❍		●							
Electrical Adjustments	Fan Minimum Adjustment								●	●	
	Fan Max Adjustment								●	●	
	Panel Type Check and Setting	❍								●	
	Iris Adjustment									●	●
	Sub Gain Adjustment									●	
	Common Center Adjustment	●								●	
	Panel Luminance Adjustment	❍								●	
	White Balance Adjustment	❍								●	

■ MEMORY IC REPLACEMENT

IC1391 on the main board stores the data for the service adjustments, and should not be replaced except for the case of defective device.
If replaced, it should be performed the re-adjustments following to the "Electrical Adjustments".
The data of lamp replacement monitor timer is stored in the IC1391.
Please note that the lamp replace counter is reset when the memory IC (IC1391) is replaced.
(Lamp replace counter can not be set to the previous value.)

● Caution to memory IC replacement
When IC1391 is replaced with new one, the CPU writes down the default data of the service adjustments to the replaced IC, refer to the service adjustment table. As these data are not the same data as factory shipped data, it should be required to perform the re-adjustments following to the "Electrical Adjustments".
Please note that in this case the lamp replace counter will be reset.

● Caution of Main Board replacement (in the case IC1391 is not defective)
When the main board is replaced, IC1391 should be replaced with the one on previous main board. After replacement, it should be required to perform the re-adjustments following to the "Electrical Adjustments".
In this case, the lamp replace counter can be kept the value as before.

■ Optical Adjustment

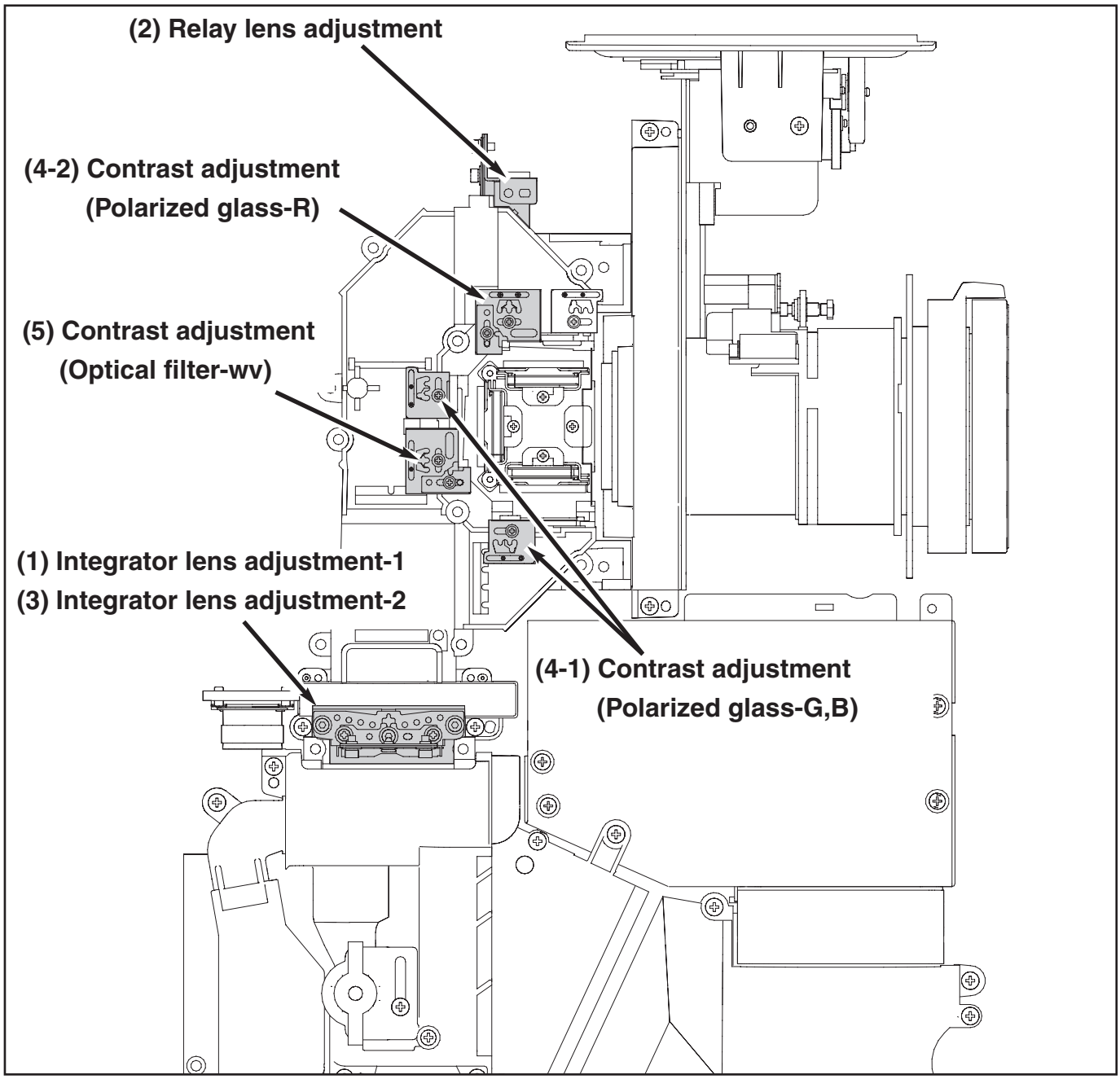
Before taking optical adjustments below, remove the Cabinet Top following to the "Mechanical Disassemblies". Adjustments require a 2.0mm hex wrench, Philips Screwdriver and a slot screwdriver. When you adjust Integrator lens or Relay lens adjustment, you need to disconnect some connectors and FPC cables of LCD panels on the main board.

Note:

Do not disconnect connectors on the main board, because the projector can not turn on or operate properly for adjustment.

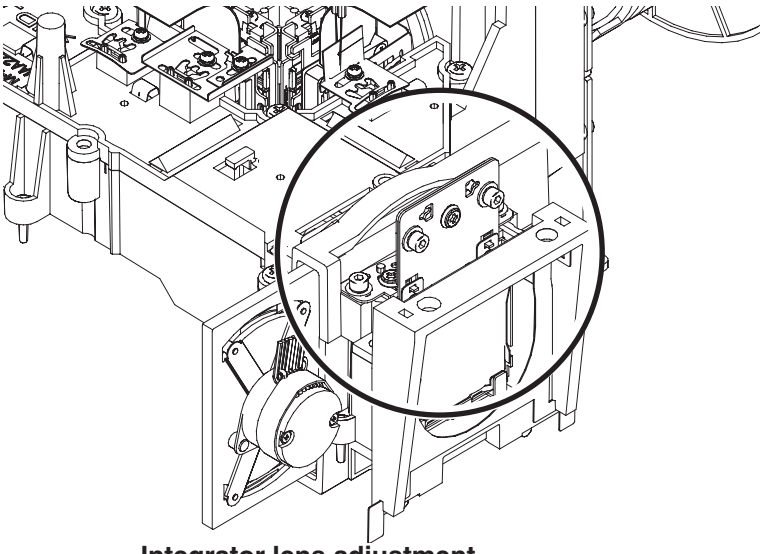
WARNING : USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING

CAUTION: To prevent suffer of UV radiation, those adjustments must be completed within 25 minutes.

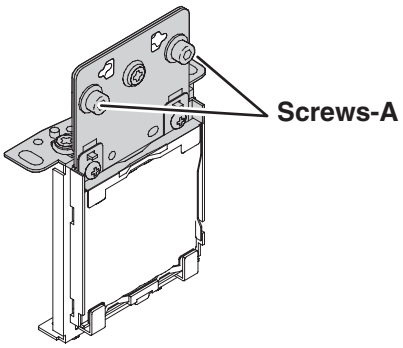


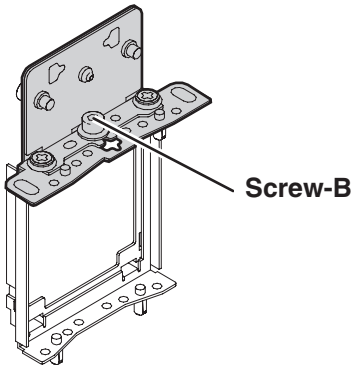
Before adjustment

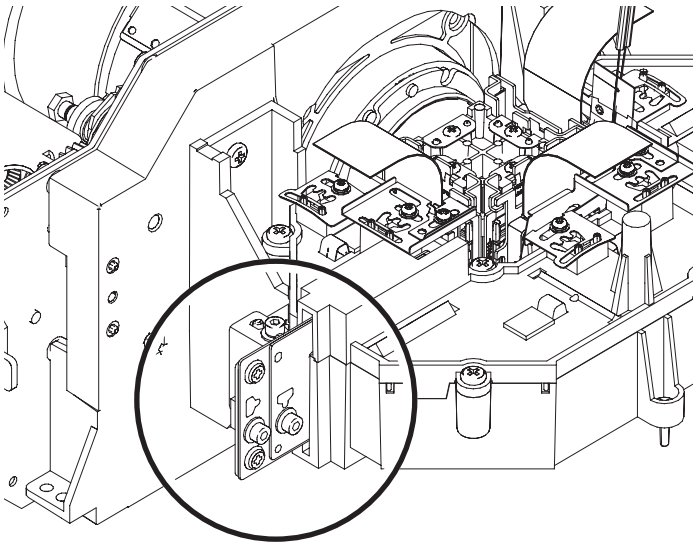
1. Turn the projector on by a state of without FPC cables.
2. Integrator lens adjustment
   Loosen the 2 screws A and screw B.
3. Relay lens adjustment
   Loosen the screw C and screw D.



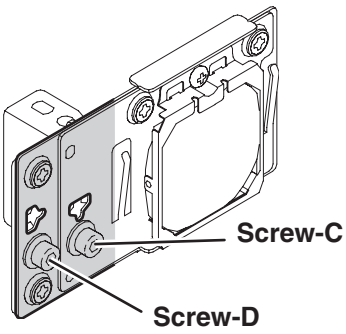
Integrator lens adjustment







Relay lens adjustment

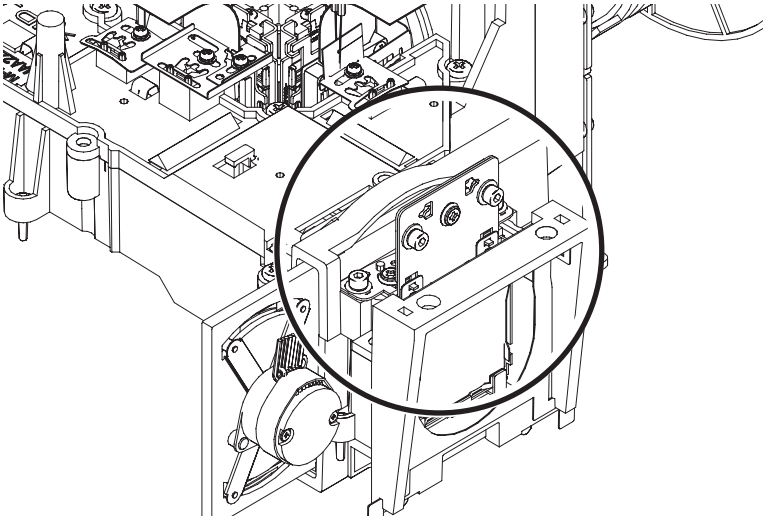


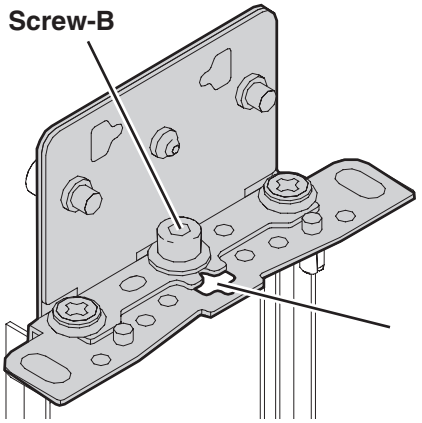
1. Integrator lens adjustment-1

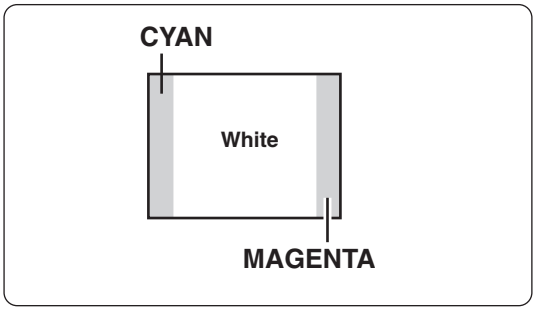
1. Adjust the slot **E** to make shading appears on the right and left(magenta and cyan) of the screen as shown in figure.
2. Adjust the slot **F** to make shading appears on the top and bottom(cyan and magenta) of the screen as shown in figure.

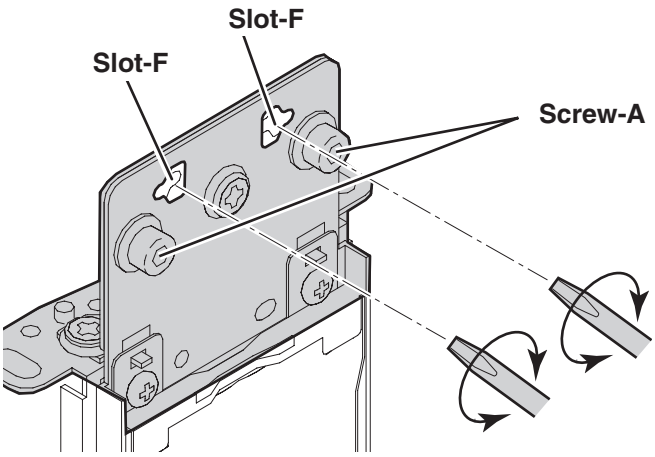
   Note;

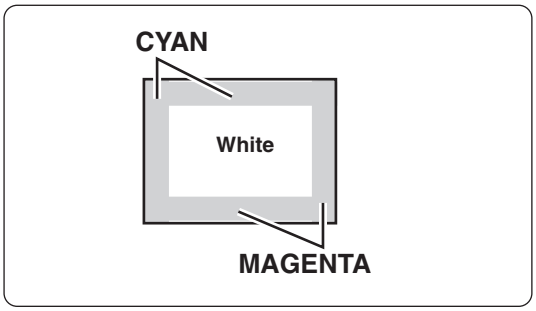
   Slot **F** is moved in parallel by operating the right and left simultaneously. Otherwise, the integrator lens rotates.



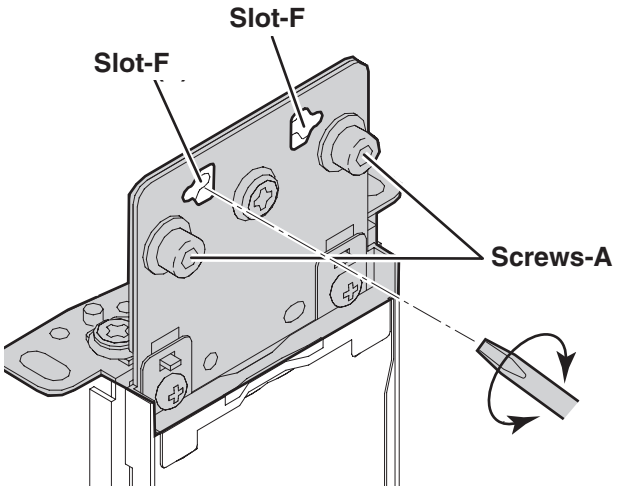


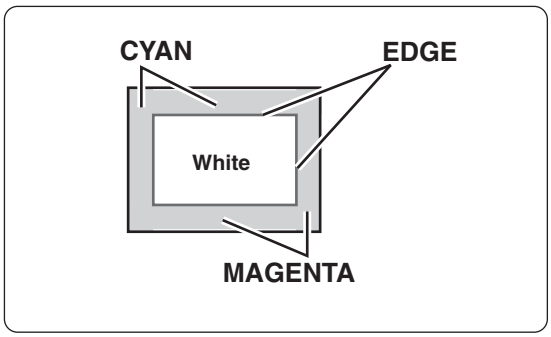


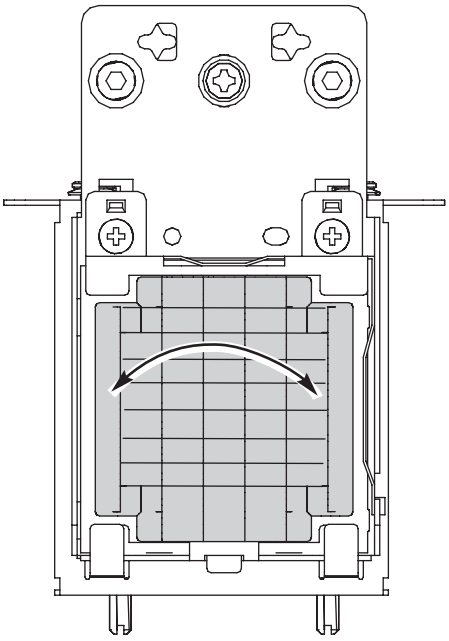




3. Adjust the boundary(edge) of the shading area to the Sharp focus.
   (The integrator lens rotates when the right or the left of slot-F is used.)

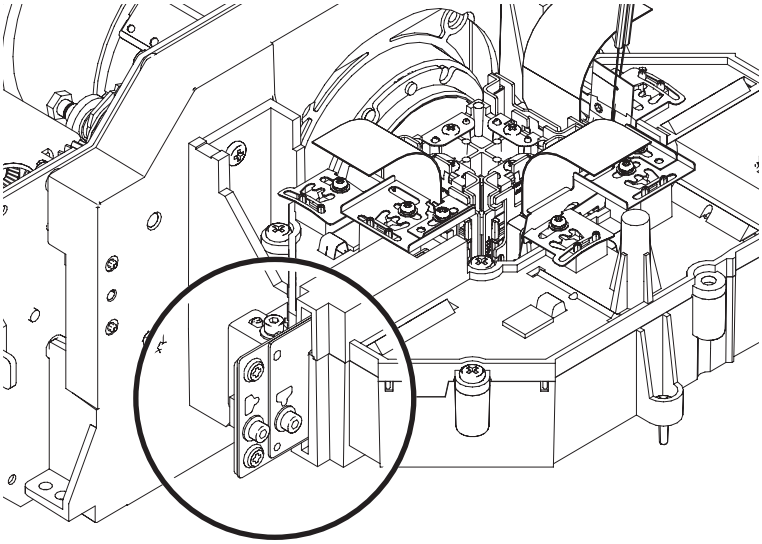


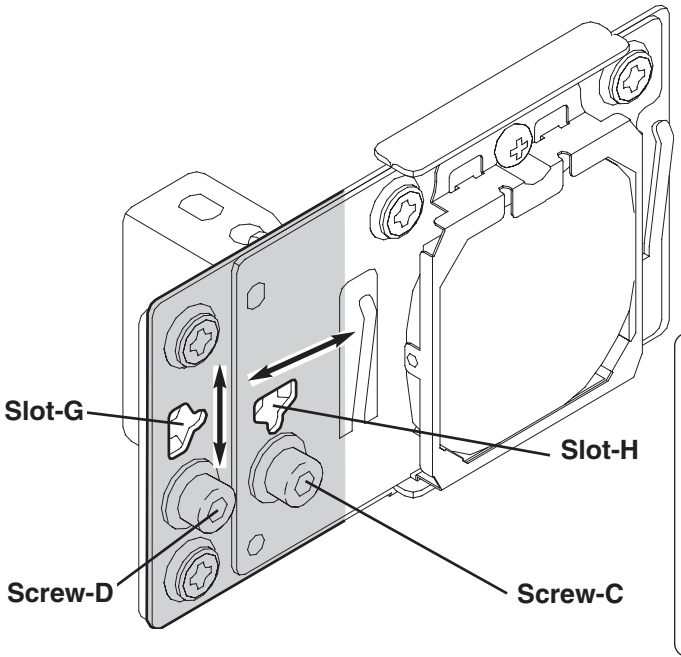


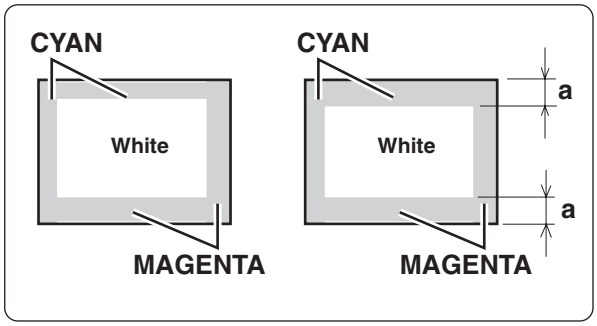


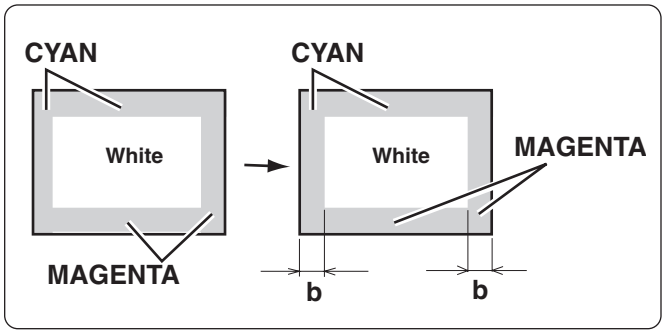
2.Relay lens adjustment

1. Adjust the slot **G**.
   It is adjusted that cyan and the magenta in the top and bottom part become the same width.
2. Adjust the slot **H**.
   It is adjusted that cyan and the magenta in the right and left part become the same width.
3. Tighten screw **C** and screw **D** to fix the relay lens unit.









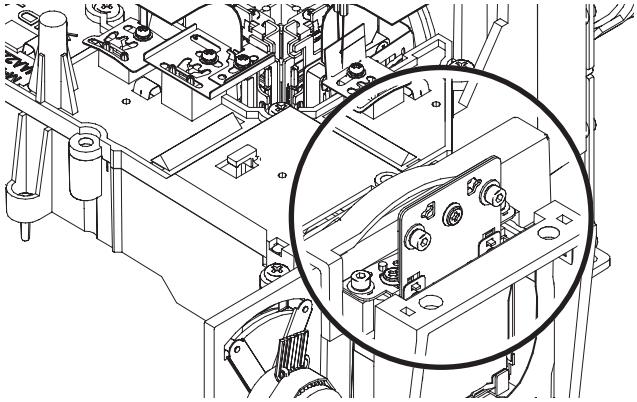
3. Integrator lens adjustment-2

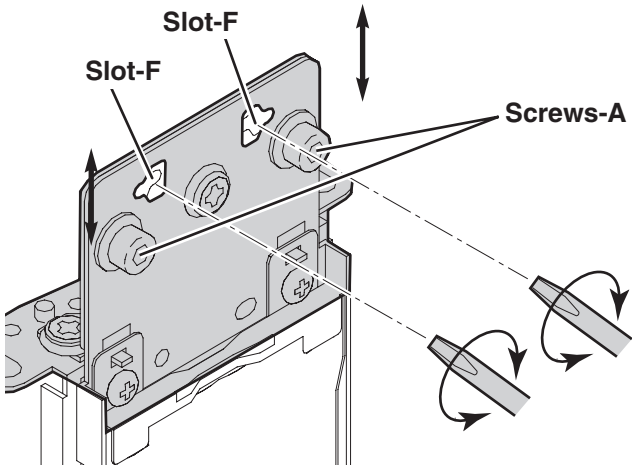
1. Adjust the 2 slots **F** to make color uniformity in white by using a slot screwdriver.
   (Top and bottom shading are erased.)

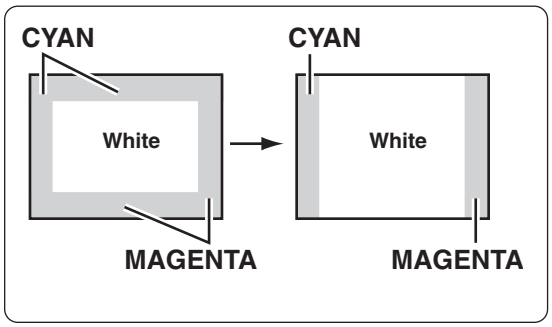
Note;

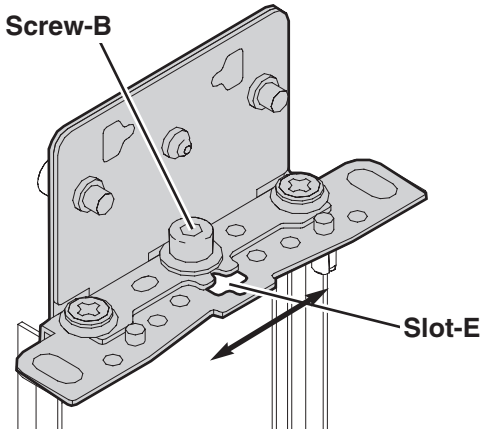
Slot **F** is moved in parallel by operating the right and left simultaneously. Otherwise, the integrator lens rotates. Refer to **"1 Integrator lens adjustment-1".**

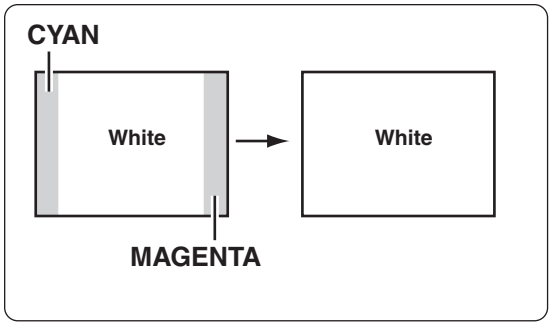
2. Adjust the slots **E** to make color uniformity in white by using a slot screwdriver.
   (Right and left shading are erased.)
3. Tighten 2 screws **A** and screw **B** to fix the integrator lens unit.











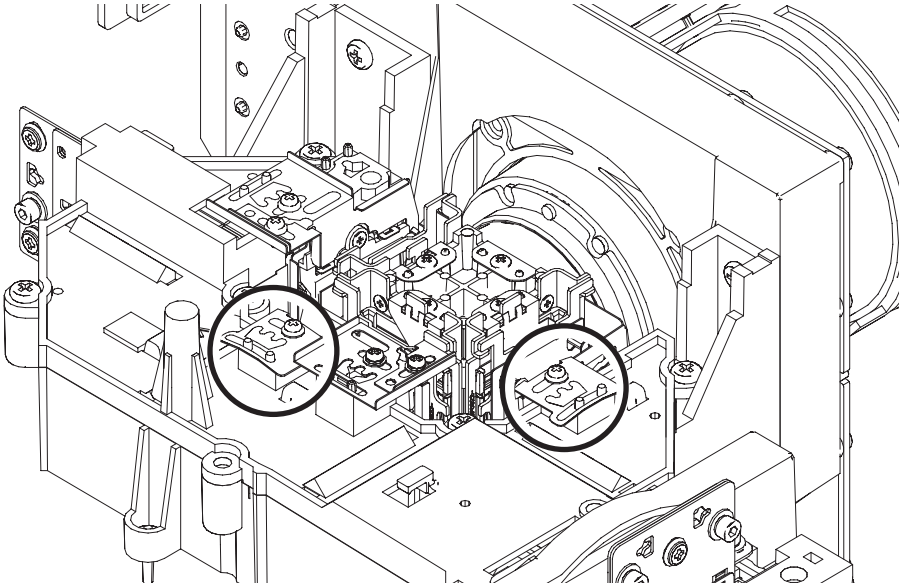
4-1. Contrast adjustment (Polarized glass-G,B)

[Before Adjustment]

- Input a 100% of black raster signal.

1. Loosen a screw **A** on the polarized glass mounting base which you intend to adjust.
2. Adjust the slot **B** to obtain the darkest brightness on the screen as shown in **Fig. 1**.
3. Tighten the screw **A** to fix the polarized glass mounting base.

Repeat steps 1 to 3 for remaining polarized glasses.



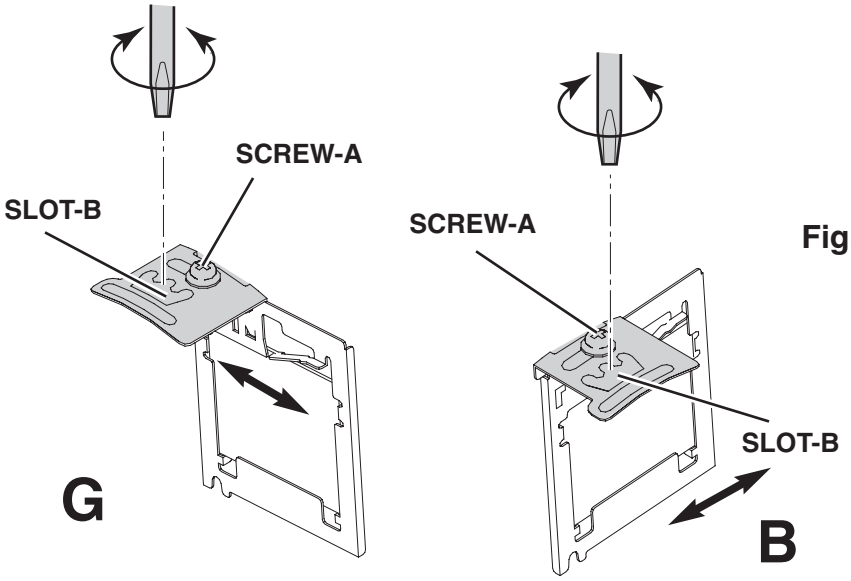


Fig. 1

4-2. Contrast adjustment (Polarized glass-R)

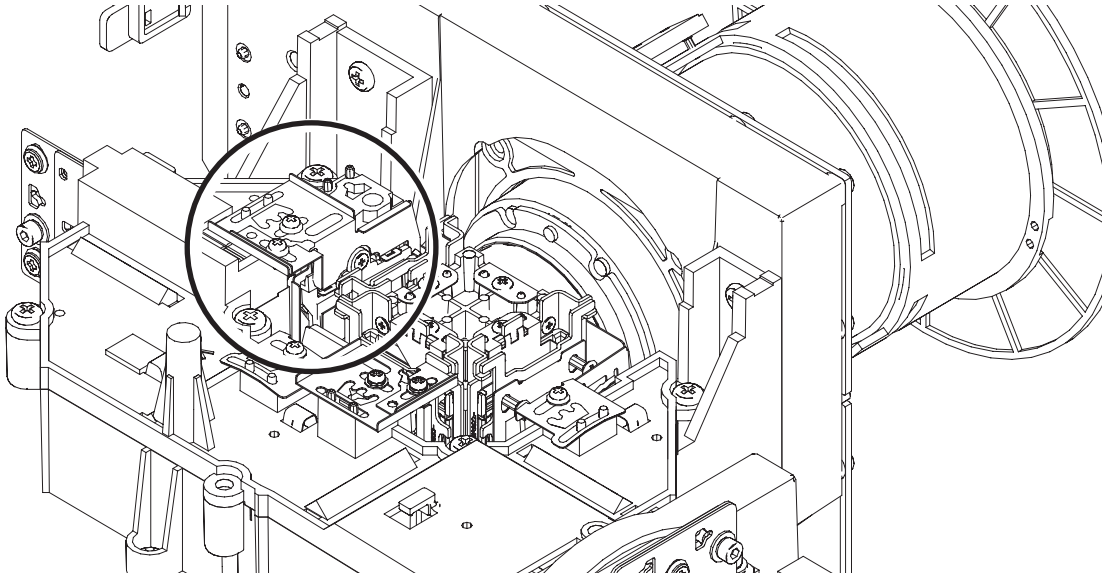
[Before Adjustment]

- Input a 100% of black raster signal.

1. Loosen a screw **A** on the polarized glass mounting base which you intend to adjust.
2. Adjust the slot **B** to obtain the darkest brightness on the screen as shown in **Fig. 2**.
3. Tighten the screw **A** to fix the polarized glass mounting base.

[If the un-uniformity appears on the corner, - - -]

4. Loosen a screw **C** on the polarized glass mounting base which you intend to adjust Red .
5. Adjust the slot **D** to obtain the uniform black on the screen as shown in **Fig. 2**.
6. Tighten the screw **C** to fix the polarized glass mounting base.



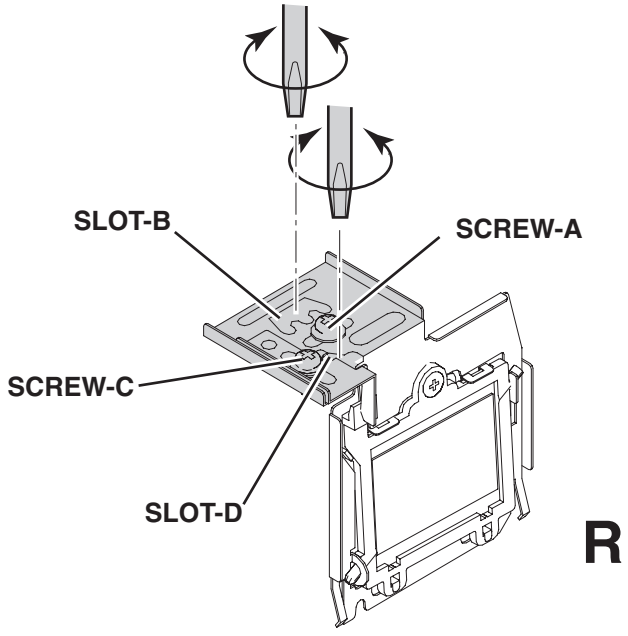


Fig. 2

5. Contrast adjustment (Optical filter WV-IN)

1. Loosen a screw **A** on the optical filter mounting base which you intend to adjust Green.
2. Adjust the slot **B** to obtain the uniform black on the screen as shown in **Fig. 3**.
3. Tighten the screw **A** to fix the optical filter mounting base.

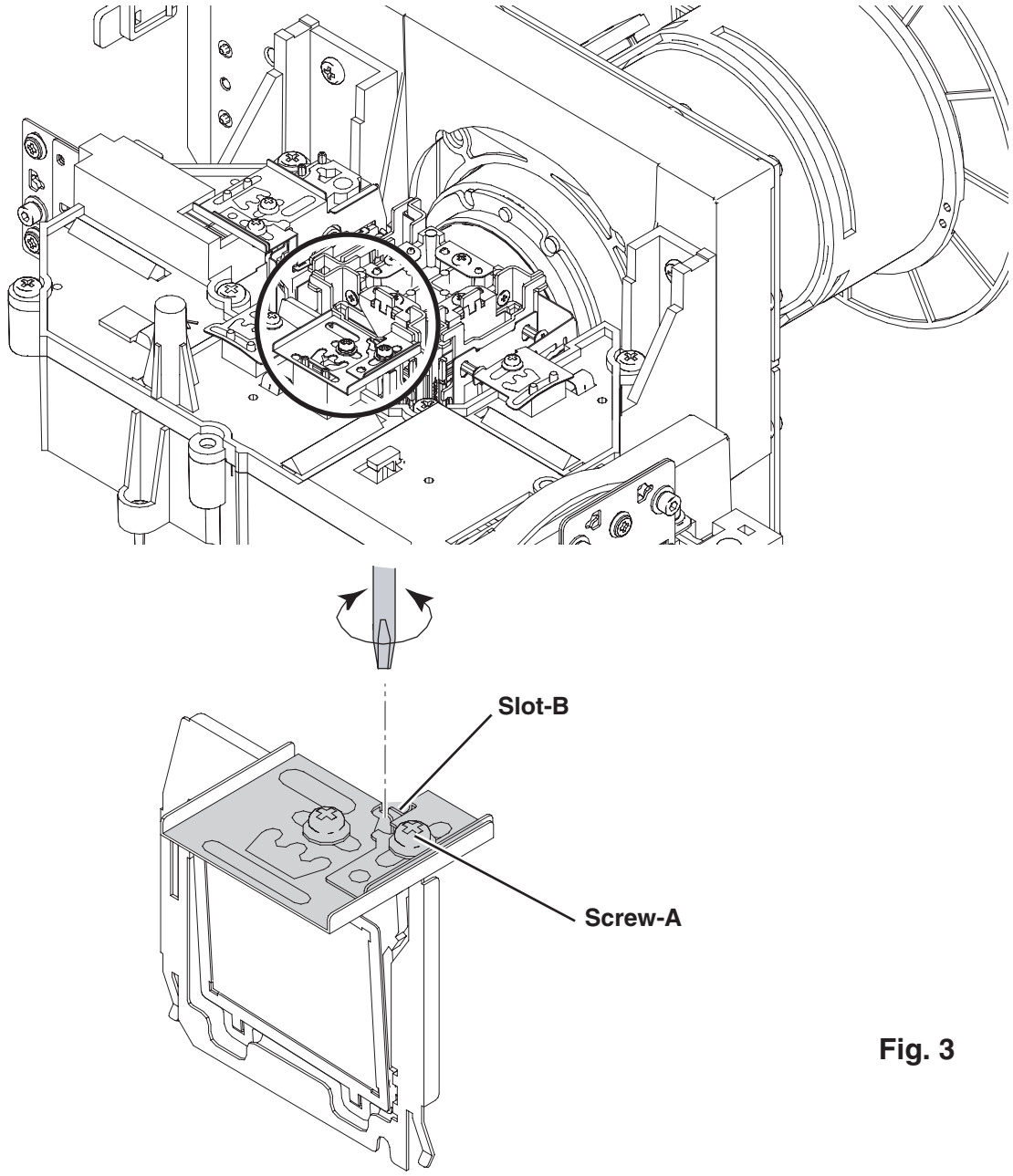


Fig. 3

■ Electrical Adjustment

● Service Adjustment Menu Operation

◆ To enter service mode

To enter service mode, press and hold the "**MENU**" and "**INPUT**" buttons on the projector simultaneously for 5 seconds. (Or press and hold the "**MENU**" button on the remote control unit for 20 seconds.) The "**S**" mark appears on the screen. While the "**S**" mark is displayed on the screen, press and hold the " **POINT UP**"and "**POINT DOWN**" buttons on the projector or "**SCREEN**" button on the remote control unit for more than 3 seconds. As shown in a figure, a service mode display appears on a screen.

◆ To adjust service data

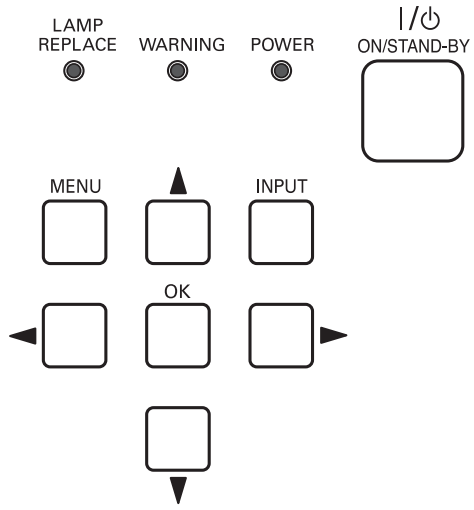
Adjust service data using the following control buttons.

– "**OK**" .....A group number increases.
– "**MENU**" .....A group number decreases.
– "**POINT UP**" .....An item number increases.
– "**POINT DOWN**" .....An item number decreases.
– "**POINT RIGHT**" .....An adjustment value increases.
– "**POINT LEFT**" .....An adjustment value decreases.

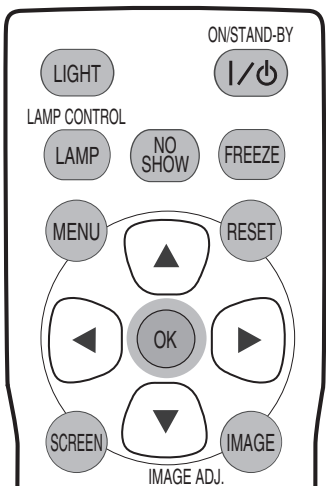
◆ To exit service mode

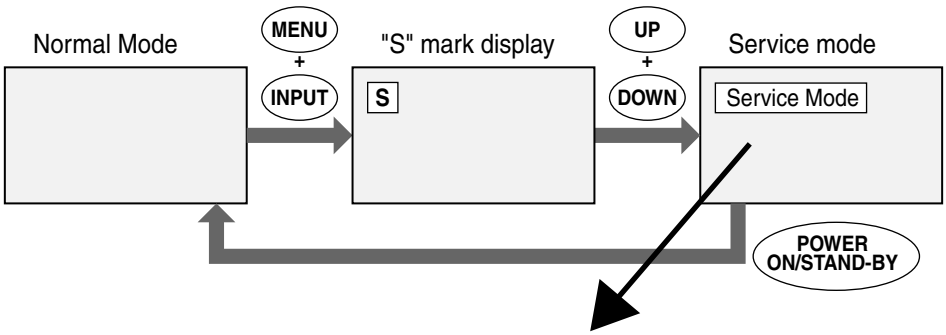
To quit the service mode, press the "**POWER ON/STAND-BY**" button only once on the projector or the remote control unit .

Top Control



Remote Control





Service Mode		SANYO		
Input	VIDEO			
Image	Dynamic			
Group	No.	Data		
102	0	0		
Ver	1.00	MC4A		
TempA	TempB	TempC		
28.62	44.75	37.75		
Fan1	Fan2	Fan3	Fan4	
53	55	56	56	
Fan1 rpm	Fan2 rpm	Fan3 rpm	Fan4 rpm	Fan5 rpm
1455	2460	1755	2490	2460

● Circuit Adjustment

CAUTION: The each circuit has been made by the fine adjustment at factory. Do not attempt to adjust the following adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety.

WARNING : USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING

CAUTION: To prevent suffer of UV radiation, those adjustments must be completed within 25 minutes.

[Adjustment Condition]

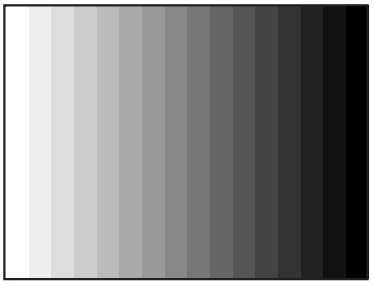
● Input signal

Computer signal ..... 0.7Vp-p/75Ω terminated, 16 steps gray scale pattern, 1 line dot pattern, 100% and 50% whole white pattern (720p format)

Component Video signal..... 0.7Vp-p/75Ω terminated, 16 steps gray scale pattern (480i, 480p, 720p and 1080i format), 100% and 50% whole white pattern (480p format)

Video signal ..... 1.0Vp-p/75Ω terminated, 16 steps gray scale pattern (NTSC composite video signal)

16 steps gray scale pattern



● Image level selection..... "Dynamic" mode unless otherwise noted.

Note:

* Please refer to "Service Adjustment Menu Operation" for entering to the service mode and adjusting the service data.

1 Fan minimum voltage adjustment

Equipment Digital voltmeter

1. Enter the service mode.
2. Change data values of each test points to adjust the fan minimum output voltage.

Item no.	Fan Location	Test Point	Adjustment value
102 - 7	FN901	TPFAN1	**3.5** ±0.05Vdc
102 - 8	FN902	TPFAN2	**3.5** ±0.05Vdc
102 - 9	FN903	TPFAN3	**3.5** ±0.05Vdc
102 - 10	FN904/5	TPFAN4	**3.5** ±0.05Vdc

Note:
The location of each fan is refer to the parts list.

2 Fan max voltage adjustment

Equipment Digital voltmeter

1. Enter the service mode.
2. Change data values of each test points to adjust the fan minimum output voltage.

Item no.	Fan Location	Test Point	Adjustment value
102 - 11	FN901	TPFAN1	**13.8** ±0.05Vdc
102 - 12	FN902	TPFAN2	**13.8** ±0.05Vdc
102 - 13	FN903	TPFAN3	**13.8** ±0.05Vdc
102 - 14	FN904/5	TPFAN4	**13.8** ±0.05Vdc

Note:
The location of each fan is refer to the parts list.

3 Panel Type Check and Setting

*Before setting, you need to check which type of LCD Panel is placed on the projector according to the item "LCD Panel/Prism ass'y removal"in the chapter "Optical Parts Disassembly"

1. Enter the service mode.
2. Panel Type Setting
   Select group/item no. "**290 - 1**", and change data value from "**10**" to "**0**" or "**20**" depending on your LCD Panel type.When the data value reaches "**0**" or "**20**", it returns to "**10**" quickly. The gamma-characteristicschanges according to your selection.
3. Panel Type Check
   Select group/item no. "**290 - 0**". Check the data vaiue as follows;
   Data value:0 For L-Type of LCD Panel
   Data value:20 For R-Type of LCD Panel

After exchanging Main unit, this readjustment is necessary.

4 Iris adjustment

Equipment NIL

After replacing or repairing the LAMP IRIS, this readjustment is needed.

1. Enter the service mode.
2. Select group/item no. "**105 - 14**", and press the "POINT RIGHT" button, then automatic iris adjustment will be done after about 30 sec. and the data value will be changed from "**0**" to "**1**" automatically.
3. After this adjustment, change this data value from "**1**" to "**0**" manually for normal operation.

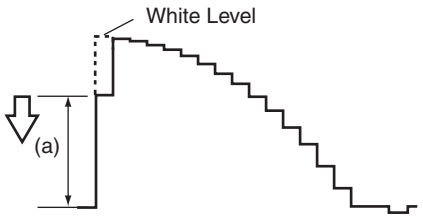
5 Sub gain adjustment

Equipment Oscilloscope
Input signal 16-step gray scale signal

4-a Input mode **Computer [RGB(Analog)]**
Image mode Dynamic
Input format **720p** computer signal
4-b Input mode **Video**
Image mode Dynamic
Input format **NTSC** composite video signal
4-c Input mode **Component_1**
Image mode Dynamic
Input format **480i** component signal
4-d Input mode **Component_1**
Image mode Dynamic
Input format **480p** component signal
4-e Input mode **Component_1**
Image mode Dynamic
Input format **720p** component signal
4-f Input mode **Component_1**
Image mode Dynamic
Input format **1080i** component signal

1. Enter the service mode.
2. Change data values for each test points to adjust the waveform "**a**" to be minimum amplitude **in each mode**.

Item no.	Test Point
106 - 0	**TP35G**
106 - 1	**TP35B**
106 - 2	**TP35R**



6 Common Center adjustment

Input mode	**Computer [RGB(Analog)]**
Image mode	Dynamic
Input signal	50% whole-white pattern 720p computer signal

1. Enter the service mode.
2. Select group/item no. "**4 - 114**", and change data value from "**0**" to "**2**". (Flicker adjustment mode ...See Note)
3. Project only one color component to the screen.
4. Change data value to obtain **the minimum flicker** for each color on the screen.
5. After this adjustment, select group/item no. "**4 -114**", and change data value from "**2**" to "**0**" for normal operation.(Or turn off the projector, then this data value will be reset to "**0**" .)

Item no.	Screen
3 - 0	Only **green** color picture
3 - 1	Only **blue** color picture
3 - 2	Only **red** color picture

Note:
The FRP signal (common electrode reverse signal) works at 120Hz, so flicker is invisible for human eyes. The service mode "**4 - 114**" can change the FRP signal from 120Hz to 60Hz, and flicker can be seen.

7 Panel Luminance adjustment (Dynamic)

Equipment	luminance meter
Input mode	**Computer [RGB(Analog)]**
Image mode	Dynamic
Input format	**720p** computer signal

1. Receive the 100% whole-white signal.
2. Enter the service mode.
3. Select group/item no. "**4 - 6**" and measure the luminance on the screen with the luminance meter. It is **A** for the reading of luminance meter.
4. Change the signal source to the 50% whole-white signal.
5. Change data value to make the reading of luminance meter to be **A x 30** ± 2**%**.

8 White Balance adjustment (Dynamic)

Input mode	**Computer [RGB(Analog)]**
Image mode	Dynamic
Input format	**720p** computer signal

1. Receive the 50% whole-white signal.
2. Enter the service mode.
3. Select group no. "**4**", item no. "**7**" (**Blue**) or "**8**" (**Red**), and change data values respectively to make a proper white balance.

9 Panel Luminance adjustment (Natural)

Equipment	luminance meter
Input mode	**Computer [RGB(Analog)]**
Image mode	Natural
Input format	**480p** computer signal

1. Receive the 100% whole-white signal.
2. Enter the service mode.
3. Project only one color component to the screen.
4. Select group/item no. "**4 - 155**" and measure the luminance on the screen with the luminance meter. It is **B** for the reading of luminance meter.
5. Change the signal source to the 50% whole-white signal.
6. Change data value to make the reading of luminance meter to be **B x 22** ± 2**%**.

Item no.	Screen
4 - 155	Only **green** color picture
4 - 156	Only **blue** color picture
4 - 157	Only **red** color picture

10 Panel Luminance adjustment (Pure Cinema)

Equipment	luminance meter
Input mode	**Component_1**
Image mode	**Pure Cinema**
Input format	**480p** component signal

1. Receive the 100% whole-white signal.
2. Enter the service mode.
3. Select group/item no. "**4 - 6**" and measure the luminance on the screen with the luminance meter. It is **B** for the reading of luminance meter.
4. Change the signal source to the 50% whole-white signal.
5. Change data value to make the reading of luminance meter to be **B x 22** ± 2**%**.

11 White Balance adjustment (Pure Cinema)

Input mode	**Component_1**
Image mode	**Pure Cinema**
Input format	**480p** component signal

1. Receive the 50% whole-white signal.
2. Enter the service mode.
3. Select group no. "**4**", item no. "**7**" (**Blue**) or "**8**" (**Red**), and change data values respectively to make a proper white balance.

12 Panel Luminance adjustment (Creative Cinema)

Equipment	luminance meter
Input mode	**Component_1**
Image mode	**Creative Cinema**
Input format	**480p** component signal

1. Receive the 100% whole-white signal.
2. Enter the service mode.
3. Select group/item no. "**4 - 6**" and measure the luminance on the screen with the luminance meter. It is **B** for the reading of luminance meter.
4. Change the signal source to the 50% whole-white signal.
5. Change data value to make the reading of luminance meter to be **B x 22** ± 2**%**.

13 White Balance adjustment (Creative Cinema)

Input mode	**Component_1**
Image mode	**Creative Cinema**
Input format	**480p** component signal

1. Receive the 50% whole-white signal.
2. Enter the service mode.
3. Select group no. "**4**", item no. "**7**" (**Blue**) or "**8**" (**Red**), and change data values respectively to make a proper white balance.

Note on WHITE UNIFORMITY Adjustment

If you find the color shading on the screen, please adjust the white uniformity by using the proper computer and "Color Shading Correction" software supplied separately. The software can be ordered as follows;

COLOR SHADING CORRECTION ver.. 4.00
Service Parts No. 645 075 9611

● Service Adjustment Data Table

These initial values are the reference data written from the CPU ROM to memory IC when replaced new memory IC. The adjustment items indicated with "✻" are required to readjust following to the "Electrical adjustments". Other items should be used with the initial data value.

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group: 0 ADV7403				
0	SOG_SYNC_LEV	11/11/11/11/11/11	0 - 31	PC/480i/575i/480p/575p/720p/1080i
Group: 3 L3E06150/1060P0A (Panel Driver)				
0	G_LCCOM	300	0 - 511	✻ G Common center adjustment
1	B_LCCOM	300	0 - 511	✻ B Common center adjustment
2	R_LCCOM	300	0 - 511	✻ R Common center adjustment
3	G_LCCOM_GAIN	191	0 - 255	G Signal Gain
4	B_LCCOM_GAIN	191	0 - 255	B Signal Gain
5	R_LCCOM_GAIN	191	0 - 255	R Signal Gain
6	G_LCCOM_BRIGHT	0	0 - 255	G Signal Bright
7	B_LCCOM_BRIGHT	0	0 - 255	B Signal Bright
8	R_LCCOM_BRIGHT	0	0 - 255	R Signal Bright
9	G_VIDEO_CENTER	18	0 - 63	G Video Center
10	B_VIDEO_CENTER	18	0 - 63	B Video Center
11	R_VIDEO_CENTER	18	0 - 63	R Video Center
12	R_ENBX_PW	12	0 - 255	R ENBX pulse width
13	G_ENBX_PW	12	0 - 255	G ENBX pulse width
14	B_ENBX_PW	12	0 - 255	B ENBX pulse width
15	R_DXIN	2	0 - 255	R DXIN Delay
16	G_DXIN	2	0 - 255	G DXIN Delay
17	B_DXIN	2	0 - 255	B DXIN Delay
18	R_CLXIN	2	0 - 255	R CLXIN Delay
19	G_CLXIN	2	0 - 255	G CLXIN Delay
20	B_CLXIN	2	0 - 255	B CLXIN Delay
21	R_ENBX1IN	14	0 - 255	R ENBX1IN Delay
22	G_ENBX1IN	14	0 - 255	G ENBX1IN Delay
23	B_ENBX1IN	14	0 - 255	B ENBX1IN Delay
Group: 4 L3E07110K0A (Digital Gamma)				
0	G_Contrast	512/512/512	360 - 535	
1	B_Contrast	512/512/512	360 - 535	PureCinema/BrilliantCinema&CreativeCinema&Natural&Living/Dynamic&Vivid
2	R_Contrast	512/512/512	360 - 535	
3	G_Bright	0/0/0	0 - 1023	
4	B_Bright	0/0/0	0 - 1023	
5	R_Bright	0/0/0	0 - 1023	
6	G_Gamma_Shift	0/0/0	-512 - 511	✻ Panel luminance adjustment
7	B_Gamma_Shift	0/0/0	-512 - 511	✻ White balance adjustment [B]
8	R_Gamma_Shift	0/0/0	-512 - 511	✻ White balance adjustment [R]
9	R_REF_H	1023	0 - 1023	
10	R_REF_L	336	0 - 1023	
11	G_REF_H	1023	0 - 1023	
12	G_REF_L	336	0 - 1023	
13	B_REF_H	1023	0 - 1023	
14	B_REF_L	336	0 - 1023	
15	DXOUTR	214	0 - 1023	
16	DXOUTG	214	0 - 1023	
17	DXOUTB	214	0 - 1023	
18	ENBX_R	0	0 - 127	
19	ENBX_G	0	0 - 127	
20	ENBX_B	0	0 - 127	
21	H_CHANGE_Pos	6	0 - 255	
22	SH_BASE_Pos	0	0 - 1	
23	R_SH_Pos	10	0 - 15	
24	G_SH_Pos	10	0 - 15	
25	B_SH_Pos	10	0 - 15	
26	NRG_Pos	51	0 - 127	
27	NRG_Width	48	0 - 255	
28	OSD_Pos	2	0 - 3	
29	OSD_Pat	0	0 - 7	
30	Gamma_Ctrl	1	0 - 1	
31	REF_GATE_Pos	1	0 - 1023	
32	REF_GATE_Width	180	0 - 1023	
33	R_BASE_Pos	6	0 - 15	
34	G_BASE_Pos	6	0 - 15	
35	B_BASE_Pos	6	0 - 15	
36	RGB_ADJUST	0	0 - 7	
37	RGB_ADJLEV	0	0 - 1023	
38	LINE_R0	8	0 - 255	
39	LINE_R1	4	0 - 255	
40	LINE_R2	2	0 - 255	
41	LINE_R3	0	0 - 255	
42	LINE_R4	0	0 - 255	
43	LINE_G0	8	0 - 255	
44	LINE_G1	4	0 - 255	
45	LINE_G2	2	0 - 255	
46	LINE_G3	0	0 - 255	

No.	Adjustment Item	Initial Value	Range	Input source / Description
47	LINE_G4	0	0 - 255	
48	LINE_B0	8	0 - 255	
49	LINE_B1	4	0 - 255	
50	LINE_B2	2	0 - 255	
51	LINE_B3	0	0 - 255	
52	LINE_B4	0	0 - 255	
53	GHOST_R_Pos	6	0 - 15	
54	GHOST_G_Pos	6	0 - 15	
55	GHOST_B_Pos	6	0 - 15	
56	GHOST_R_cent	0	0 - 2047	
57	GHOST_R_start	128	0 - 2047	
58	GHOST_R_end	128	0 - 2047	
59	GHOST_G_cent	0	0 - 2047	
60	GHOST_G_start	128	0 - 255	
61	GHOST_G_end	128	0 - 255	
62	GHOST_B_cent	0	0 - 2047	
63	GHOST_B_start	128	0 - 255	
64	GHOST_B_end	128	0 - 255	
65	BLOCK_R1	0	0 - 2047	
66	BLOCK_G1	0	0 - 2047	
67	BLOCK_B1	0	0 - 2047	
68	BLOCK_R2	0	0 - 2047	
69	BLOCK_G2	0	0 - 2047	
70	BLOCK_B2	0	0 - 2047	
71	REVERSE_R	0	0 - 2047	
72	REVERSE_G	0	0 - 2047	
73	REVERSE_B	0	0 - 2047	
74	BACK_CTALK_R_cent	0	0 - 2047	
75	BACK_CTALK_R_start	128	0 - 255	
76	BACK_CTALK_R_end	128	0 - 255	
77	BACK_CTALK_G_cent	0	0 - 2047	
78	BACK_CTALK_G_start	128	0 - 255	
79	BACK_CTALK_G_end	128	0 - 255	
80	BACK_CTALK_B_cent	0	0 - 2047	
81	BACK_CTALK_B_start	128	0 - 255	
82	BACK_CTALK_B_end	128	0 - 255	
83	CS_COR	1	0 - 1	
84	H_START	265	0 - 2047	
85	V_START	8	0 - 2047	
86	H_END	1545	0 - 2047	
87	V_END	728	0 - 2047	
88	R_MIN	530	0 - 1023	
89	R_MID6	602	0 - 1023	
90	R_MID5	652	0 - 1023	
91	R_MID4	691	0 - 1023	
92	G_MIN	720	0 - 1023	
93	G_MID6	746	0 - 1023	
94	G_MID5	772	0 - 1023	
95	G_MID4	802	0 - 1023	
96	B_MIN	530	0 - 1023	
97	B_MID6	602	0 - 1023	
98	B_MID5	652	0 - 1023	
99	B_MID4	691	0 - 1023	
100	R_MID3	720	0 - 1023	
101	R_MID2	746	0 - 1023	
102	R_MID1	772	0 - 1023	
103	R_MAX	802	0 - 1023	
104	G_MID3	530	0 - 1023	
105	G_MID2	602	0 - 1023	
106	G_MID1	652	0 - 1023	
107	G_MAX	691	0 - 1023	
108	B_MID3	720	0 - 1023	
109	B_MID2	746	0 - 1023	
110	B_MID1	772	0 - 1023	
111	B_MAX	802	0 - 1023	
112	H_OUTPUT_Pos	102	0 - 1023	
113	OUTAREA_LEVEL	0	0 - 1023	
114	FLICKER_ADJUST	0	0 / 2	0: Disable, 2: Flicker adjustment setting
115	FRC_BIT	1	0 - 1	10bit/12bit
116	FRONT_CTALK2_R_cent	0	0 - 2047	
117	FRONT_CTALK2_R_start	127	0 - 255	
118	FRONT_CTALK2_R_end	128	0 - 255	
119	FRONT_CTALK2_G_cent	0	0 - 2047	
120	FRONT_CTALK2_G_start	127	0 - 255	
121	FRONT_CTALK2_G_end	128	0 - 255	
122	FRONT_CTALK2_B_cent	0	0 - 2047	
123	FRONT_CTALK2_B_start	127	0 - 255	
124	FRONT_CTALK2_B_end	128	0 - 255	
125	R_DCOffset_N_Gain	0/0	0 - 255	Scanning direction (Front projection/Rear projection)
126	R_DCOffset_N_1	0/0	0 - 511	
127	R_DCOffset_N_2	0/0	0 - 511	
128	R_DCOffset_N_11	0/0	0 - 511	
129	R_DCOffset_N_12	0/0	0 - 511	
130	R_DCOffset_P_Gain	0/0	0 - 255	

No.	Adjustment Item	Initial Value	Range	Input source / Description
131	R_DCOffset_P_1	0/0	0 - 511	
132	R_DCOffset_P_2	0/0	0 - 511	
133	R_DCOffset_P_11	0/0	0 - 511	
134	R_DCOffset_P_12	0/0	0 - 511	
135	G_DCOffset_N_Gain	0/0	0 - 255	
136	G_DCOffset_N_1	0/0	0 - 511	
137	G_DCOffset_N_2	0/0	0 - 511	
138	G_DCOffset_N_11	0/0	0 - 511	
139	G_DCOffset_N_12	0/0	0 - 511	
140	G_DCOffset_P_Gain	0/0	0 - 255	
141	G_DCOffset_P_1	0/0	0 - 511	
142	G_DCOffset_P_2	0/0	0 - 511	
143	G_DCOffset_P_11	0/0	0 - 511	
144	G_DCOffset_P_12	0/0	0 - 511	
145	B_DCOffset_N_Gain	0/0	0 - 255	
146	B_DCOffset_N_1	0/0	0 - 511	
147	B_DCOffset_N_2	0/0	0 - 511	
148	B_DCOffset_N_11	0/0	0 - 511	
149	B_DCOffset_N_12	0/0	0 - 511	
150	B_DCOffset_P_Gain	0/0	0 - 255	
151	B_DCOffset_P_1	0/0	0 - 511	
152	B_DCOffset_P_2	0/0	0 - 511	
153	B_DCOffset_P_11	0/0	0 - 511	
154	B_DCOffset_P_12	0/0	0 - 511	
155	G_HalfLight	0/0	-512 - 511	
156	B_HalfLight	0/0	-512 - 511	DARK/BRIGHT[Natural,Living,CreativeCinema,PureCinema/Dynamic,Vivid]
157	R_HalfLight	0/0	-512 - 511	
158	SWAP_OUTPUT	0	0 - 5	L3E07110 Output Swap: Normal=0, RB Swap=5
Group: 5 PIC				
0	Revision	Read only		
1	Version	Read only		
2	Lamp Voltage Pic	Read only		
3	Lamp Voltage	Read only		
Group: 6 FPGA				
0	Soft version	Read only		
1	Hard version	Read only		
2	H Total	Read only		
3	V Total	Read only		
4	H Resolution	Read only		
5	V Resolution	Read only		
6	Color management enable	1	0 - 1	0: Disable, 1:Enable
7	Y Range	8	0 - 32	
8	Hue Range	10	0 - 20	
9	Gain Range	30	0 - 50	
10	Gamma Minimus Slope	3	0 - 10	
11	Gamma Maximum Slope	18	0 - 30	
12	Gamma Converge	3	1 - 5	
13	Same Hue	3	1 - 10	
14	UV Norm	5	0 - 64	
15	Minimum Y	0	0 - 127	
16	Maximum Y	255	128 - 255	
17	Area Big Chg	67	0 - 4095	
18	Area Small Chg	67	0 - 4095	
19	Area Chg Sens	150	0 - 4095	
20				
Group: 100 PW Option				
2	Forced NOBRAND	0	0 - 1	0: Normal, 1: Forced NOBRAND LOGO
4	Super Standby Mode	0	0 - 1	0: Normal Standby Mode, 1: Super Standby Mode
5	PWDEBUG_SW	0	0 - 1	0: PWDebug Disable, 1: PWDebug Enable
6	No signal lamp mode	0	0 - 1	0: Disable change lamp mode at no signal, 1: Enable
7	Language Display	1	0 - 1	0: Off, 1: On
10	RS232C BaudRate	0	0 - 1	0: 19200bps, 1: 9600bps
11	EP6130_VLINE_RESET	0	0 - 10	
12	Signal Display	0	0 - 1	0: Normal, 1: Display signal name in the information of the menu(XGA1,VGA1,etc)
13	My Picture	0	0 - 1	0: My Picture key disable, 1: My Picture key enable
14		-	-	
15	HDMI Detection Delay Time	60	0 - 300	
Group: 101 Dimmer				
0	Dimmer SW	0	0 - 1	0: Auto, 1: Manual
1	Manual Control	0	0 - 15	Dimmer control level 0 (dark) ... 15 (bright)
2	DIMMER_CTRL_LEVEL0	0/0	0 - 255	APL threshold level (AUTO1/AUTO2)
3	DIMMER_CTRL_LEVEL1	0/0	0 - 255	
4	DIMMER_CTRL_LEVEL2	8/13	0 - 255	
5	DIMMER_CTRL_LEVEL3	16/26	0 - 255	
6	DIMMER_CTRL_LEVEL4	24/39	0 - 255	
7	DIMMER_CTRL_LEVEL5	32/52	0 - 255	
8	DIMMER_CTRL_LEVEL6	40/65	0 - 255	
9	DIMMER_CTRL_LEVEL7	48/78	0 - 255	APL threshold level (AUTO1/AUTO2)
10	DIMMER_CTRL_LEVEL8	56/255	0 - 255	
11	DIMMER_CTRL_LEVEL9	64/255	0 - 255	

No.	Adjustment Item	Initial Value	Range	Input source / Description
12	DIMMER_CTRL_LEVEL10	72/255	0 - 255	
13	DIMMER_CTRL_LEVEL11	80/255	0 - 255	
14	DIMMER_CTRL_LEVEL12	88/255	0 - 255	
15	DIMMER_CTRL_LEVEL13	96/255	0 - 255	
16	DIMMER_CTRL_LEVEL14	104/255	0 - 255	
17	DIMMER_AVERAGE_POINT	2	0 - 7	
18	DIMMER_AVERAGE_DATA	-	0 - 255	
19	DIMMER_NORMAL_LV	15	0 - 15	
20	DIMMER_ECO_LV	0	0 - 15	
21	FORCE_LAMP_MODE_NORMAL	0	0 - 1	
Group: 102 Fan Control				
0	Fan Control Mode 1	0	0 - 3	0: Normal, 1: Ceiling, 2: Wall hanging, 3: Highland
1	Fan Control Mode 2	0	0 - 2	0: Normal, 1: Forced wall hanging mode, 3: Forced highland mode
2	Fan SW	0	0 - 3	0: Auto, 1: Temp. MIN, 2: Temp. MAX, 3: Manual
3	Manual Fan1 Voltage	100	30 - 145	
4	Manual Fan2 Voltage	100	30 - 145	
5	Manual Fan3 Voltage	100	30 - 145	
6	Manual Fan4 Voltage	100	30 - 145	
7	Fan1 Min Adjust	20	0 - 255	✻ Fan minimum voltage adjustment
8	Fan2 Min Adjust	20	0 - 255	
9	Fan3 Min Adjust	20	0 - 255	
10	Fan4 Min Adjust	20	0 - 255	
11	Fan1 Max Adjust	225	0 - 255	✻ Fan max voltage adjustment
12	Fan2 Max Adjust	225	0 - 255	
13	Fan3 Max Adjust	225	0 - 255	
14	Fan4 Max Adjust	225	0 - 255	
15	Fan1 Min Limit	35	30 - 145	
16	Fan2 Min Limit	30	30 - 145	
17	Fan3 Min Limit	35	30 - 145	
18	Fan4 Min Limit	30	30 - 145	
19	Fan1 Max Limit	138	30 - 145	
20	Fan2 Max Limit	138	30 - 145	
21	Fan3 Max Limit	138	30 - 145	
22	Fan4 Max Limit	138	30 - 145	
23	Fan1 Min Rpm	510	510 - 4500	
24	Fan2 Min Rpm	510	510 - 6510	
25	Fan3 Min Rpm	510	510 - 4500	
26	Fan4 Min Rpm	510	510 - 6510	
27	Fan1 Max Rpm	4500	510 - 4500	
28	Fan2 Max Rpm	6510	510 - 6510	
29	Fan3 Max Rpm	4500	510 - 4500	
30	Fan4 Max Rpm	6510	510 - 6510	
		Norm/Ceil/wall/Highland		
31	Normal Fan1 Min	1560/1560/1680/2580	510 - 4500	
32	Normal Fan2 Min	3240/3285/3450/4620	510 - 6510	
33	Normal Fan3 Min	2235/2235/2415/3300	510 - 4500	
34	Normal Fan4 Min	2580/2580/2775/4335	510 - 6510	
35	Normal Fan1 Max	2490/2490/2490/2760	510 - 4500	
36	Normal Fan2 Max	3375/3465/3375/4530	510 - 6510	
37	Normal Fan3 Max	3060/3060/3060/3675	510 - 4500	
38	Normal Fan4 Max	5055/5055/5340/4965	510 - 6510	
39	Normal TempA Low	27/27/27/25	-5 - 100	
40	Normal TempA High	35/35/35/30	-5 - 100	
41	Normal TempB Low	50/50/49/50	-5 - 100	
42	Normal TempB High	55/55/54/53	-5 - 100	
43	Normal TempC Low	43/43/45/43	-5 - 100	
44	Normal TempC High	48/48/50/48	-5 - 100	
45	Normal TempA Error	41/41/41/31	-5 - 100	
46	Normal TempB Error	56/56/55/54	-5 - 100	
47	Normal TempC Error	49/51/51/49	-5 - 100	
48	Normal TempB-A Error	33/33/33/30	0 - 100	
49	Normal TempC-A Error	26/26/26/28	0 - 100	
50	Eco Fan1 Min	1245/1680/1860/2085	510 - 4500	
51	Eco Fan2 Min	2235/2265/2220/3405	510 - 6510	
52	Eco Fan3 Min	1605/2340/2520/3045	510 - 4500	
53	Eco Fan4 Min	1815/1815/1815/3900	510 - 6510	
54	Eco Fan1 Max	2325/2325/2310/2715	510 - 4500	
55	Eco Fan2 Max	2670/2655/2550/3600	510 - 6510	
56	Eco Fan3 Max	1935/2640/2835/3360	510 - 4500	
57	Eco Fan4 Max	4125/4905/5025/4740	510 - 6510	
58	Eco TempA Low	27/27/27/25	-5 - 100	
59	Eco TempA High	35/35/35/30	-5 - 100	
60	Eco TempB Low	53/52/51/52	-5 - 100	
61	Eco TempB High	58/57/56/55	-5 - 100	
62	Eco TempC Low	46/46/46/42	-5 - 100	
63	Eco TempC High	51/51/51/47	-5 - 100	
64	Eco TempA Error	41/41/41/31	-5 - 100	
65	Eco TempB Error	59/59/57/56	-5 - 100	
66	Eco TempC Error	52/52/52/48	-5 - 100	
67	Eco TempB-A Error	38/38/38/30	0 - 100	
68	Eco TempC-A Error	26/28/26/28	0 - 100	
69	Auto Watt Max Fan1 Min	1560/1545/1680/2580	510 - 4500	
70	Auto Watt Max Fan2 Min	3240/3285/3450/4620	510 - 6510	

No.	Adjustment Item	Initial Value	Range	Input source / Description
71	Auto Watt Max Fan3 Min	2235/2235/2415/3300	510 - 4500	
72	Auto Watt Max Fan4 Min	2580/2580/2820/4335	510 - 6510	
73	Auto Watt Max Fan1 Max	2490/2490/2490/2760	510 - 4500	
74	Auto Watt Max Fan2 Max	3375/3465/3375/4530	510 - 6510	
75	Auto Watt Max Fan3 Max	3045/3045/3045/3675	510 - 4500	
76	Auto Watt Max Fan4 Max	5055/5055/5340/4965	510 - 6510	
77	Auto Watt Min Fan1 Min	1245/1680/1860/2085	510 - 4500	
78	Auto Watt Min Fan2 Min	2235/2265/2220/3405	510 - 6510	
79	Auto Watt Min Fan3 Min	1605/2340/2520/3045	510 - 4500	
80	Auto Watt Min Fan4 Min	1815/1815/1815/3900	510 - 6510	
81	Auto Watt Min Fan1 Max	2325/2325/2310/2715	510 - 4500	
82	Auto Watt Min Fan2 Max	2670/2655/2550/3600	510 - 6510	
83	Auto Watt Min Fan3 Max	1935/2640/2835/3360	510 - 4500	
84	Auto Watt Min Fan4 Max	4125/4905/5025/4740	510 - 6510	
85	Auto TempA Low	27/27/27/25	-5 - 100	
86	Auto TempA High	35/35/35/30	-5 - 100	
87	Auto TempB Low	53/52/51/52	-5 - 100	
88	Auto TempB High	58/57/56/55	-5 - 100	
89	Auto TempC Low	46/46/46/42	-5 - 100	
90	Auto TempC High	51/51/51/47	-5 - 100	
91	Auto TempA Error	41/41/41/31	-5 - 100	
92	Auto TempB Error	59/59/57/56	-5 - 100	
93	Auto TempC Error	52/52/52/48	-5 - 100	
94	Auto TempB-A Error	38/38/38/30	0 - 100	
95	Auto TempC-A Error	26/28/26/28	0 - 100	
96	Cooling Time	2	0 - 15	0: Always ON, 1: 30sec, 2:60sec, 3: 90sec, ... 15: 450sec.
97	Temp Error Cooling Time	3	1 - 15	1: 30sec, 2: 60sec, 3: 90sec, ... 15: 450sec.
98	Average Time	1	0 - 10	0:10sec, 1: 30sec, 2: 60sec, 3: 90sec ... 10: 300sec
99	Change Normal	0	0 - 1	0: Normal, 1: Forced lamp MAX
101	Dac Change Speed	2	1 - 10	
102	Fan1 Initial Vol	50	0 - 255	
103	Fan2 Initial Vol	40	0 - 255	
104	Fan3 Initial Vol	50	0 - 255	
105	Fan4 Initial Vol	40	0 - 255	
106	Fan Keep Time	15	0 - 180	
107	Fan Min Keep Time	60	0 - 180	
108	Shutdown Temp A	5	0 - 100	
109	Shutdown Temp B	20	0 - 100	
110	Shutdown Temp C	5	0 - 100	
111	Shutdown Temp B-A	20	0 - 100	
112	Shutdown Temp C-A	20	0 - 100	
113	Shutdown Time A	240	0 - 255	
114	Shutdown Time B	240	0 - 255	
115	Shutdown Time C	240	0 - 255	
116	Shutdown Time B-A	240	0 - 255	
117	Shutdown Time C-A	240	0 - 255	
122	Fan Min Interlock	0	0 - 1	FAN MIN Interlock On/Off (0: Individual, 1: Link)
123	Fan Cooling Up Limt	23	0 - 40	
124	Fan Cooling Up Limt	3	0 - 10	
125	Lamp Monitor SW	1	0 - 1	0: Off, 1: On
126	Lamp Voltage	---	30 - 90	Read only
127	Lamp Vol Threshold	60	50 - 90	
128	Fan Speed Gain	300	0 - 1500	
129	Lamp Keep Time	90	0 - 255	
Group: 103 Lens IRIS				
0	Iris Descriptor Min	120	0 - 255	
1	Iris Descriptor Max	230	0 - 255	
2	Iris Valid	1	0 - 1	0: Disable, 1: Enable
3	Iris ADC Value	---	0 - 255	Read only
Group: 104 Door Control				
0	Door Control Brake	16	1 - 16	
1	Door Control First	0	0 - 2000	
2	Door Control Open	900	0 - 2000	
3	Door Control Close	900	0 - 2000	
4	Door Control Extra	300	0 - 2000	
5	Door Control Limit	5000	0 - 20000	
6	Door Control Initialize	400	0 - 2000	
7	Door Control Count OPEN	---	0 - 30000	Read only
8	Door Control Count CLOSE	---	0 - 30000	Read only
9	Door Control Reset OPEN	1	0 - 1	
10	Door Control Reset CLOSE	1	0 - 1	
11	Door Control Exhibition	0	0 - 1	Shutter demonstration(0: Normal demo, 1: Exhibition demo)
12	Door Control Blink Time	2	0 - 10	0: Always, 1: 30sec, 2: 60sec ... n: 30n sec.
Group: 105 Lamp IRIS		Br/Cr/Pu/Na/Li/Dy/Vi		
0	Lamp IRIS Mecha A	50	1 - 254	
1	Lamp IRIS Mecha B	200	1 - 254	
2	Lamp IRIS PWM Time	200	100 - 1000	
3	Lamp IRIS Margin	5	0 - 63	
4	Lamp IRIS Point C	1/4/4/4/1/4/4	0 - 255	
5	Lamp IRIS Point O	48/64/64/64/64/64/48	0 - 255	
6	Lamp IRIS Min X	17/22/22/22/17/22/0	0 - 63	

No.	Adjustment Item	Initial Value	Range	Input source / Description
7	Lamp IRIS Max Y	63/63/63/63/63/63	0 - 63	
8	Lamp IRIS Close	33	0 - 63	
9	Lamp IRIS Open	63	0 - 63	
10	Lamp IRIS Ave Time	4/4	1 - 8	(Low speed / higt speed)
11	Lamp IRIS SW	0	0 - 1	0:Auto, 1:Manual
12	Lamp IRIS Manual	128	1 - 254	
13	Lamp IRIS 145W Min	22	0 - 63	
14	Lamp IRIS Adjust	0	0 - 1	Moving range adjustment of Lens iris and Lamp iris ※ Iris adjustment
15	Lamp IRIS Reverse Count	0	0 - 50000	
16	Lamp IRIS Move Step	2/152	1 - 255	(Low speed / higt speed)
17	Lamp IRIS Wait Limt	11	1 - 255	
Group: 106 User menu contrast center adjust				
0	Contrast G center adjust	512/467/512/512/ 512/512/512/512/490	0 - 1023	Ntsc,Pal,Secam,PalM,PalN,Mono60,Mono50/Ntsc443,Pal60/480i,575i/480p,575p/ 720p60,720p50/1080i60,1080i50/PC/Scart/HDMI
1	Contrast B center adjust	512/467/512/512/ 512/512/512/512/490	0 - 1023	※ Sub gain adjustment
2	Contrast R center adjust	512/467/512/512/ 512/512/512/512/490	0 - 1023	
Group: 200 PW DeInterlacer (General)				
0	IP MODE	0	0 - 1	0: IP OFF with IP Black, 1: IP OFF without IP Block
1	3:2 PullDown Mode	1	0 - 3	bit 0 : Global Motion Enable, bit 1 : Video Motion
Group: 201 PW DeInterlacer (Progressive level)				
0	Motion Adaptive Weight Value	27/27/60/65/60/60/60/60 0/0/0/0/0/0/0/0 27/27/60/65/60/60/60/60	0 - 255	L1 : Composite/SVideo/480i,575i/1080i,1080i50/Scart/HDMI(480i,575i)/HDMI(1080i,1080i50)/PC L2 : Composite/SVideo/480i,575i/1080i,1080i50/Scart/HDMI(480i,575i)/HDMI(1080i,1080i50)/PC Film: Composite/SVideo/480i,575i/1080i,1080i50/Scart/HDMI(480i,575i)/HDMI(1080i,1080i50)/PC
1	Low Angle interpolation	0/2/2	0 - 4	L1/L2/Film
Group: 203 PW DeInterlacer (Noise Reduction)				
0	Noise reduction enable	0/1/1/1/1/1/1/1	0 - 1	Composite/SVideo/480i,575i/480p,575p/Scart/ HDMI(480i,575i)/HDMI(VGA,480p,575p)/PC(480p,575p,VGA)
1	Tmp noise reduction enable	1/1/1/1/1/1/1/1	0 - 1	
2	NoiseLevel	0/0/0/0/0/0/0/0	0 - 1023	
3	Noise Pixel Range	3/3/3/3/3/3/3/3	0 - 3	
4	Noise Region 0	12/12/12/12/12/12/12/12	0 - 1023	
5	Noise Region 1	24/24/24/24/24/24/24/24	0 - 1023	
6	Noise Region 2	40/40/40/40/40/40/40/40	0 - 1023	
7	Noise Gain Level	148/148/148/148/148/ 148/148/148	0 - 1023	
Group: 204 PW DeInterlacer (2:2 Pull Down)				
0	22Film Mode Sensitivity	4	0 - 5	
1	22Film Mode Threshold Low	80	0 - 32767	
2	22Film Mode Threshold High	120	0 - 32767	
3	VOFTHR13	124	0 - 1023	
4	VOFTHR12	124	0 - 1023	
5	VOFTHR23	124	0 - 1023	
6	Video Motion Window Start X	10	0 - 2047	
7	Video Motion Window Stop X	10	0 - 2047	
8	Video Motion Window Start Y	10	0 - 1023	
9	Video Motion Window Stop Y	10	0 - 1023	
Group: 205 PW DeInterlacer (2:3 Pull Down)				
0	Global Motion Sensitivity	4	0 - 5	
1	Video Motion Sensitivity	4	0 - 5	
2	Video Motion Threshold Low	120	0 - 32767	
3	Video Motion Threshold High	180	0 - 32767	
4	Global Motion Threshold	124	0 - 1023	
5	23Film Mode Threshold	100	0 - 32767	
6	Global Motion Window Start X	10	0 - 2047	
7	Global Motion Window Stop X	10	0 - 2047	
8	Global Motion Window Start Y	10	0 - 1023	
9	Global Motion Window Stop Y	10	0 - 1023	
Group: 210 PW Scaling Filter				
0	Scaling Filter	14/14/15/17/15/9/ 15/15/16/18/13/13/17	0 - 42	Composite/SVideo/480i,575i/480p,575p/720p60,720p50/1035i,1080i60,1080i50/ Scart/HDMI(480i,575i)/HDMI(VGA,480p,575p)/HDMI(720p)/HDMI(1080i)/HDMI(1080p)/PC
1	Scaling Filter Difference	6	0 - 20	Progressive OFF at YCbCr1035i,1080i60,1080i50/HDMI(1080i)
Group: 220 PW Video Enhancement				
0	DCS	0/0/0/0/0/0/0/0/0/0/0/0	0 - 1	Composite/SVideo/480i,575i/480p,575p/720p60,720p50/1035i,1080i60,1080i50/ Scart/HDMI(480i,575i)/HDMI(VGA,480p,575p)/HDMI(720p)/HDMI(1080i)/HDMI(1080p)/PC
1	DCTI	1/1/1/0/0/0/0/0/0/0/0/0	0 - 5	
2	Peaking enable	1/1/1/0/1/1/1/1/0/1/1/1/1	0 - 1	
3	Peaking overshoot 1	8/8/8/8/8/8/8/8/8/8/8/8	0 - 255	
4	Peaking overshoot 2	8/8/8/8/8/8/8/8/8/8/8/8	0 - 255	
5	Peaking B	2/2/2/2/2/2/2/2/2/2/2/2	0 - 3	
6	Peaking H	1/1/1/1/1/1/1/1/1/1/1/1	0 - 3	
7	Peaking low pass filter gain	3/2/5/3/4/4/4/2/4/4/2/2/0/	0 - 63	
8	Peaking high pass filter gain	3/2/5/3/4/4/4/2/4/4/2/2/0/	0 - 63	
9	Peaking core filter threshold	10/10/10/10/10/10/ 10/10/10/10/10/10/10	0 - 31	
10	BWL	0/0/0/0/0/0/0/0/0/0/0/0	0 - 255	

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group: 230 PW Input port				
0	VSBEG	2	0 - 15	
Group: 290				
0	Gamma L/R-View	10	0,20	0:Gamma for L-Panel,20: Gamma for R-Panel (Read Only)
1	Gamma L/R-Change	10		Change for R-Panel when the value is set to 20 Change for L-Panel when the value is set to 0 ※ Panel Type Check
Group: 500 NTSC overscan				
1	DISP DOTS	694		
2	H BACK PORCH	86		
3	V BACK PORCH	32		
4	DISP LINE	474		
5	CLAMP	3		
6	WIDTH	30		
Group: 501 NTSC overscan (Normal through/Full through)				
1	DISP DOTS	694		
2	H BACK PORCH	86		
3	V BACK PORCH	32		
4	DISP LINE	474		
5	CLAMP	3		
6	WIDTH	30		
Group: 502 PAL overscan				
1	DISP DOTS	692		
2	H BACK PORCH	92		
3	V BACK PORCH	44		
4	DISP LINE	562		
5	CLAMP	3		
6	WIDTH	30		
Group: 503 PAL overscan (Normal through/Full through)				
1	DISP DOTS	692		
2	H BACK PORCH	92		
3	V BACK PORCH	44		
4	DISP LINE	562		
5	CLAMP	3		
6	WIDTH	30		
Group: 510 YCbCr 480i overscan				
1	DISP DOTS	702		
2	H BACK PORCH	82		
3	V BACK PORCH	28		
4	DISP LINE	482		
5	CLAMP	10		
6	WIDTH	40		
Group: 511 YCbCr 480i overscan (Normal through/Full through)				
1	DISP DOTS	702		
2	H BACK PORCH	82		
3	V BACK PORCH	28		
4	DISP LINE	482		
5	CLAMP	0		
6	WIDTH	32		
Group: 512 YCbCr 575i overscan				
1	DISP DOTS	692		
2	H BACK PORCH	92		
3	V BACK PORCH	38		
4	DISP LINE	574		
5	CLAMP	10		
6	WIDTH	40		
Group: 513 YCbCr 575i overscan (Normal through/Full through)				
1	DISP DOTS	694		
2	H BACK PORCH	91		
3	V BACK PORCH	38		
4	DISP LINE	574		
5	CLAMP	10		
6	WIDTH	40		
Group: 514 YCbCr 480p overscan				
0	TOTAL DOTS	1716		
1	DISP DOTS	1440		
2	H BACK PORCH	115		
3	V BACK PORCH	36		
4	DISP LINE	483		
5	CLAMP	27		
6	WIDTH	20		
Group: 515 YCbCr 480p overscan (Normal through/Full through)				
0	TOTAL DOTS	858		

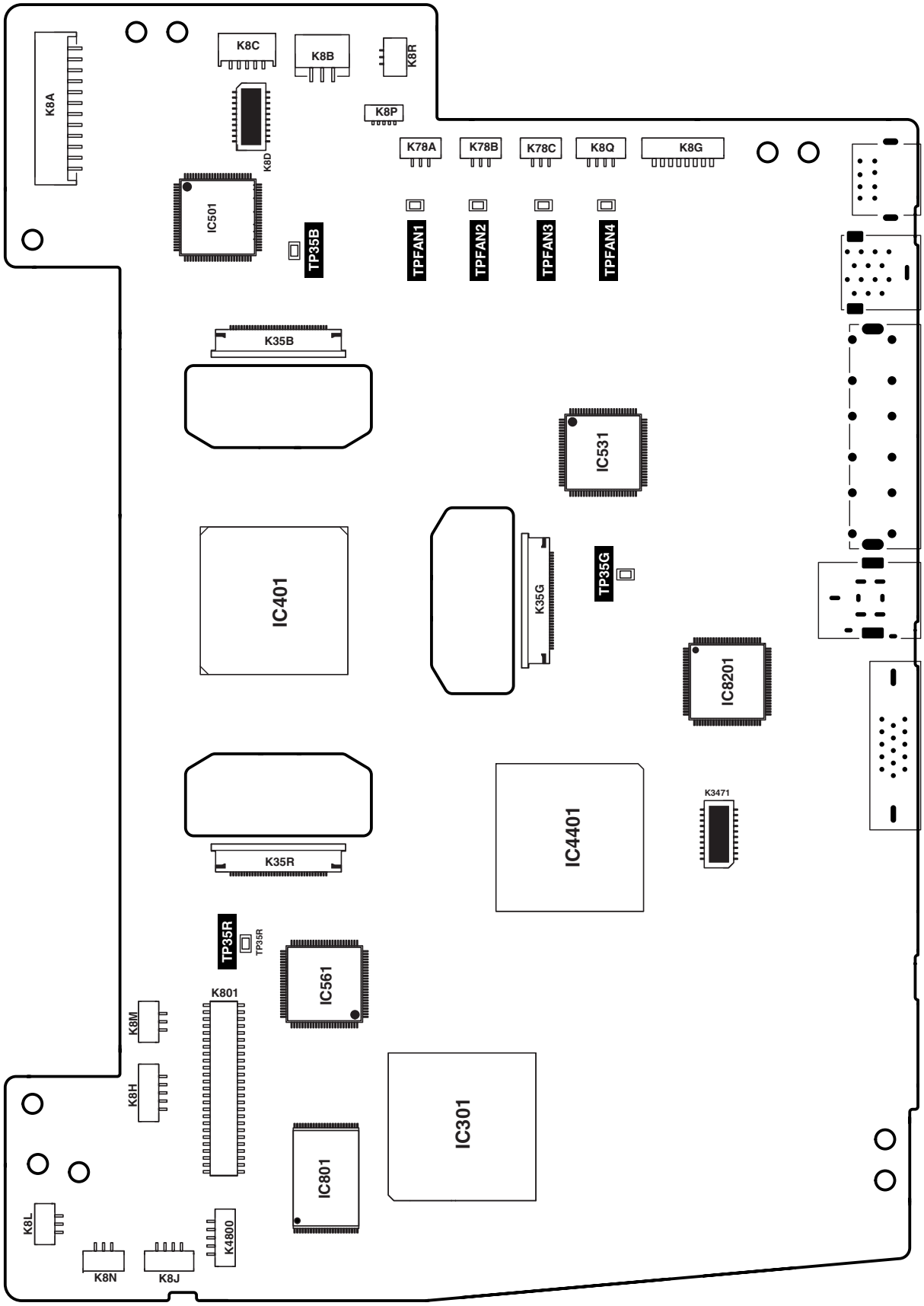
No.	Adjustment Item	Initial Value	Range	Input source / Description
1	DISP DOTS	712		
2	H BACK PORCH	62		
3	V BACK PORCH	36		
4	DISP LINE	483		
5	CLAMP	18		
6	WIDTH	20		
Group: 516 YCbCr 575p overscan				
0	TOTAL DOTS	1886		
1	DISP DOTS	1536		
2	H BACK PORCH	178		
3	V BACK PORCH	44		
4	DISP LINE	576		
5	CLAMP	25		
6	WIDTH	20		
Group: 517 YCbCr 575p overscan (Normal through/Full through)				
0	TOTAL DOTS	928		
1	DISP DOTS	768		
2	H BACK PORCH	82		
3	V BACK PORCH	44		
4	DISP LINE	576		
5	CLAMP	25		
6	WIDTH	20		
Group: 518 YCbCr 720p-50 overscan				
0	TOTAL DOTS	1980		
1	DISP DOTS	1280		
2	H BACK PORCH	217		
3	V BACK PORCH	25		
4	DISP LINE	720		
5	CLAMP	10		
6	WIDTH	24		
Group: 519 YCbCr 720p-60 overscan				
0	TOTAL DOTS	1650		
1	DISP DOTS	1280		
2	H BACK PORCH	217		
3	V BACK PORCH	25		
4	DISP LINE	720		
5	CLAMP	0		
6	WIDTH	20		
Group: 521 YCbCr 1080i-50 overscan				
0	TOTAL DOTS	2640		
1	DISP DOTS	1920		
2	H BACK PORCH	145		
3	V BACK PORCH	40		
4	DISP LINE	1080		
5	CLAMP	0		
6	WIDTH	20		
Group: 522 YCbCr 1080i-60 overscan				
0	TOTAL DOTS	2200		
1	DISP DOTS	1920		
2	H BACK PORCH	145		
3	V BACK PORCH	40		
4	DISP LINE	1080		
5	CLAMP	0		
6	WIDTH	20		
Group: 530 RGB 480i overscan				
1	DISP DOTS	610		
2	H BACK PORCH	136		
3	V BACK PORCH	48		
4	DISP LINE	458		
5	CLAMP	1		
6	WIDTH	20		
Group: 531 RGB 480i overscan (Normal through/Full through)				
1	DISP DOTS	610		
2	H BACK PORCH	136		
3	V BACK PORCH	48		
4	DISP LINE	458		
5	CLAMP	1		
6	WIDTH	20		
Group: 532 RGB 575i overscan				
1	DISP DOTS	716		
2	H BACK PORCH	185		
3	V BACK PORCH	64		
4	DISP LINE	534		
5	CLAMP	1		
6	WIDTH	20		

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group: 533 RGB 575i overscan (Normal through/Full through)				
1	DISP DOTS	716		
2	H BACK PORCH	185		
3	V BACK PORCH	64		
4	DISP LINE	534		
5	CLAMP	1		
6	WIDTH	20		
Group: 536 RGB 575p overscan				
0	TOTAL DOTS	928		
1	DISP DOTS	696		
2	H BACK PORCH	84		
3	V BACK PORCH	83		
4	DISP LINE	500		
5	CLAMP	1		
6	WIDTH	20		
Group: 537 RGB 575p overscan (Normal through/Full through)				
0	TOTAL DOTS	928		
1	DISP DOTS	696		
2	H BACK PORCH	84		
3	V BACK PORCH	83		
4	DISP LINE	500		
5	CLAMP	1		
6	WIDTH	20		
Group: 538 RGB 720p-50 overscan				
0	TOTAL DOTS	1980		
1	DISP DOTS	1280		
2	H BACK PORCH	234		
3	V BACK PORCH	25		
4	DISP LINE	720		
5	CLAMP	10		
6	WIDTH	20		
Group: 539 RGB 720p-60 overscan				
0	TOTAL DOTS	1650		
1	DISP DOTS	1280		
2	H BACK PORCH	217		
3	V BACK PORCH	25		
4	DISP LINE	720		
5	CLAMP	10		
6	WIDTH	20		
Group: 541 RGB 1080i-50 overscan				
0	TOTAL DOTS	2640		
1	DISP DOTS	1920		
2	H BACK PORCH	143		
3	V BACK PORCH	40		
4	DISP LINE	1080		
5	CLAMP	10		
6	WIDTH	20		
Group: 542 RGB 1080i-60 overscan				
0	TOTAL DOTS	2200		
1	DISP DOTS	1920		
2	H BACK PORCH	143		
3	V BACK PORCH	40		
4	DISP LINE	1080		
5	CLAMP	10		
6	WIDTH	20		
Group: 550 SCART 480i overscan				
1	DISP DOTS	690		
2	H BACK PORCH	88		
3	V BACK PORCH	26		
4	DISP LINE	480		
5	CLAMP	1		
6	WIDTH	32		
Group: 551 SCART 480i overscan (Normal through/Full through)				
1	DISP DOTS	690		
2	H BACK PORCH	86		
3	V BACK PORCH	26		
4	DISP LINE	480		
5	CLAMP	1		
6	WIDTH	32		
Group: 552 SCART 575i overscan				
1	DISP DOTS	710		
2	H BACK PORCH	86		
3	V BACK PORCH	36		
4	DISP LINE	570		
5	CLAMP	1		

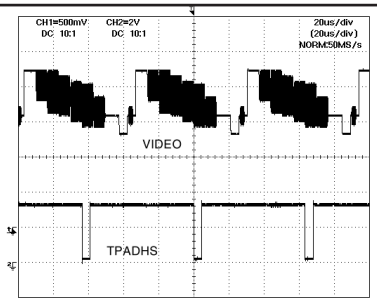
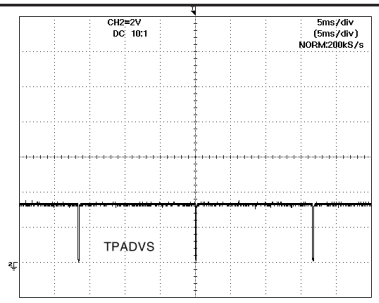
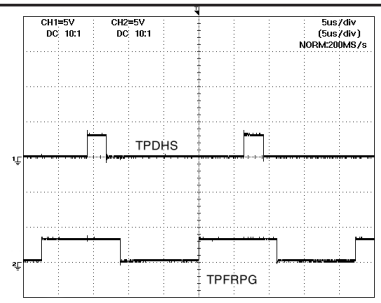
No.	Adjustment Item	Initial Value	Range	Input source / Description
6	WIDTH	32		
Group: 553 SCART 575i overscan (Normal through/Full through)				
1	DISP DOTS	710		
2	H BACK PORCH	83		
3	V BACK PORCH	36		
4	DISP LINE	570		
5	CLAMP	1		
6	WIDTH	32		

● Location of Test Points

MAIN BOARD



■ Waveform

VIDEO-IN < IC8201-(73)>	Analog V-SYNC <IC8201-(99)>	Digital H-SYNC <DHS>
		
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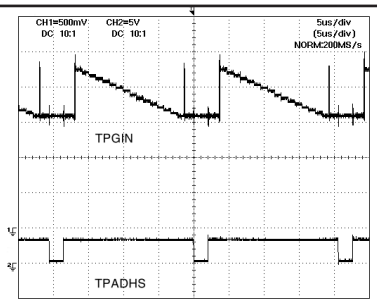
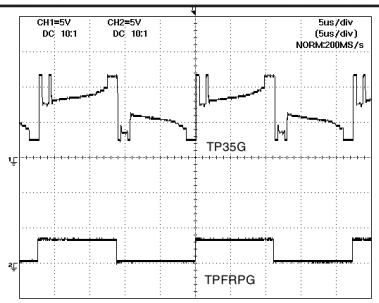
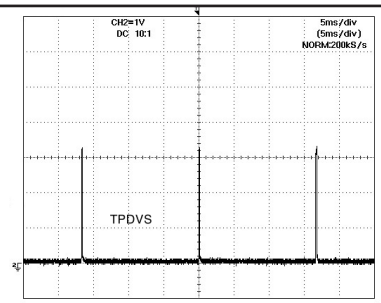
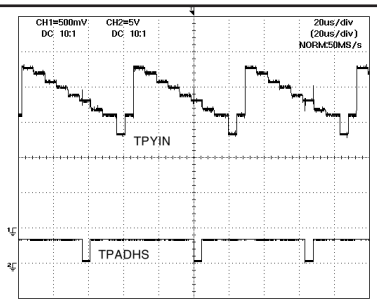
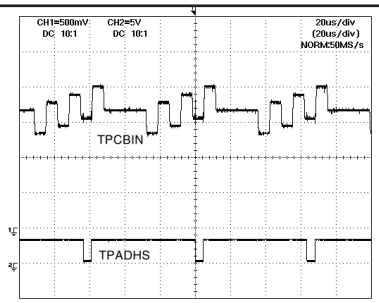
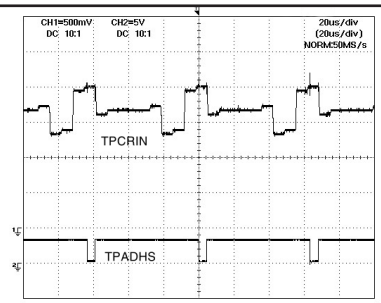
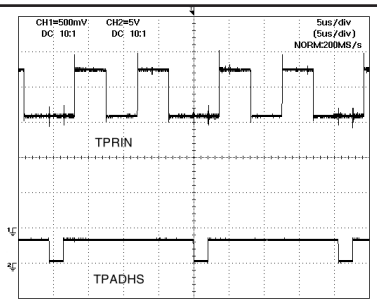
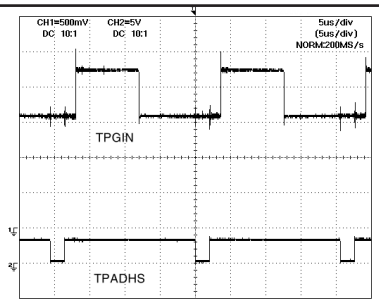
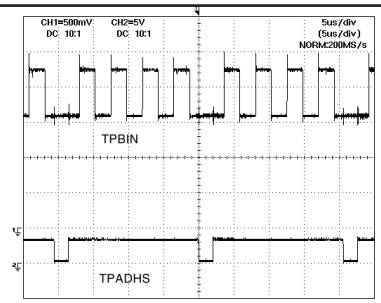
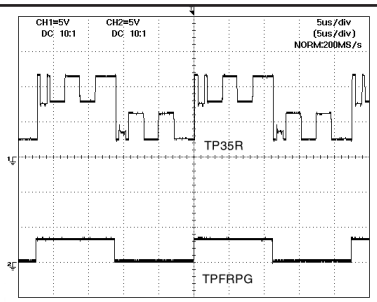
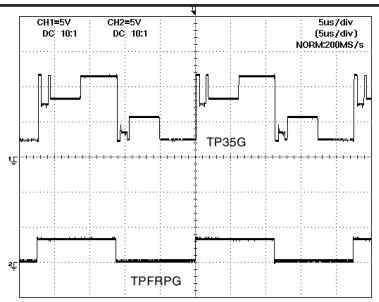
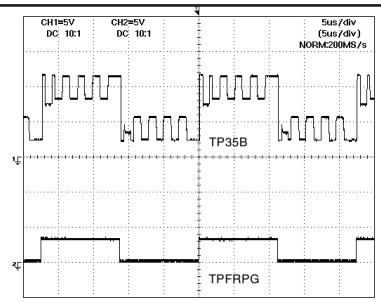
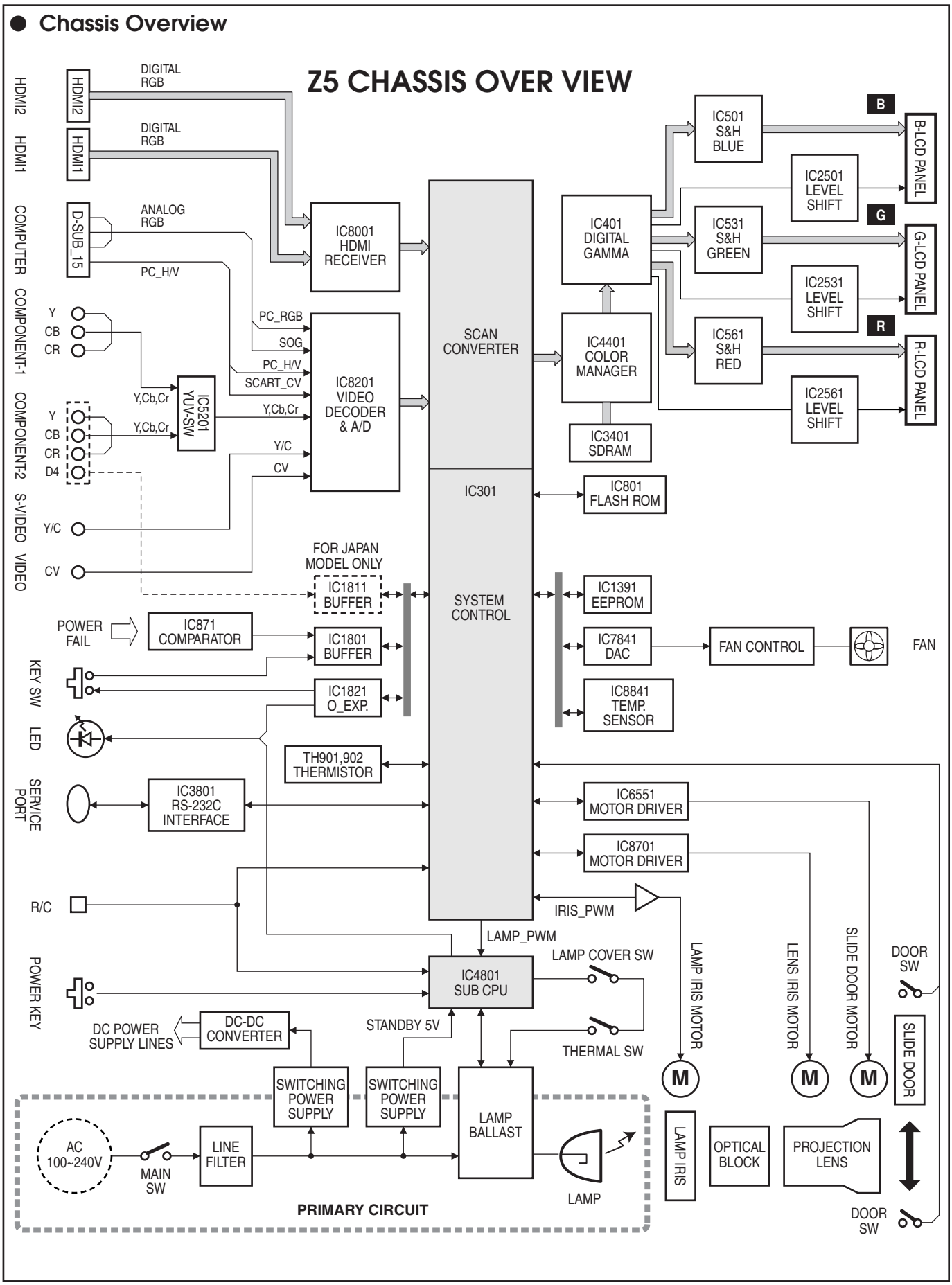
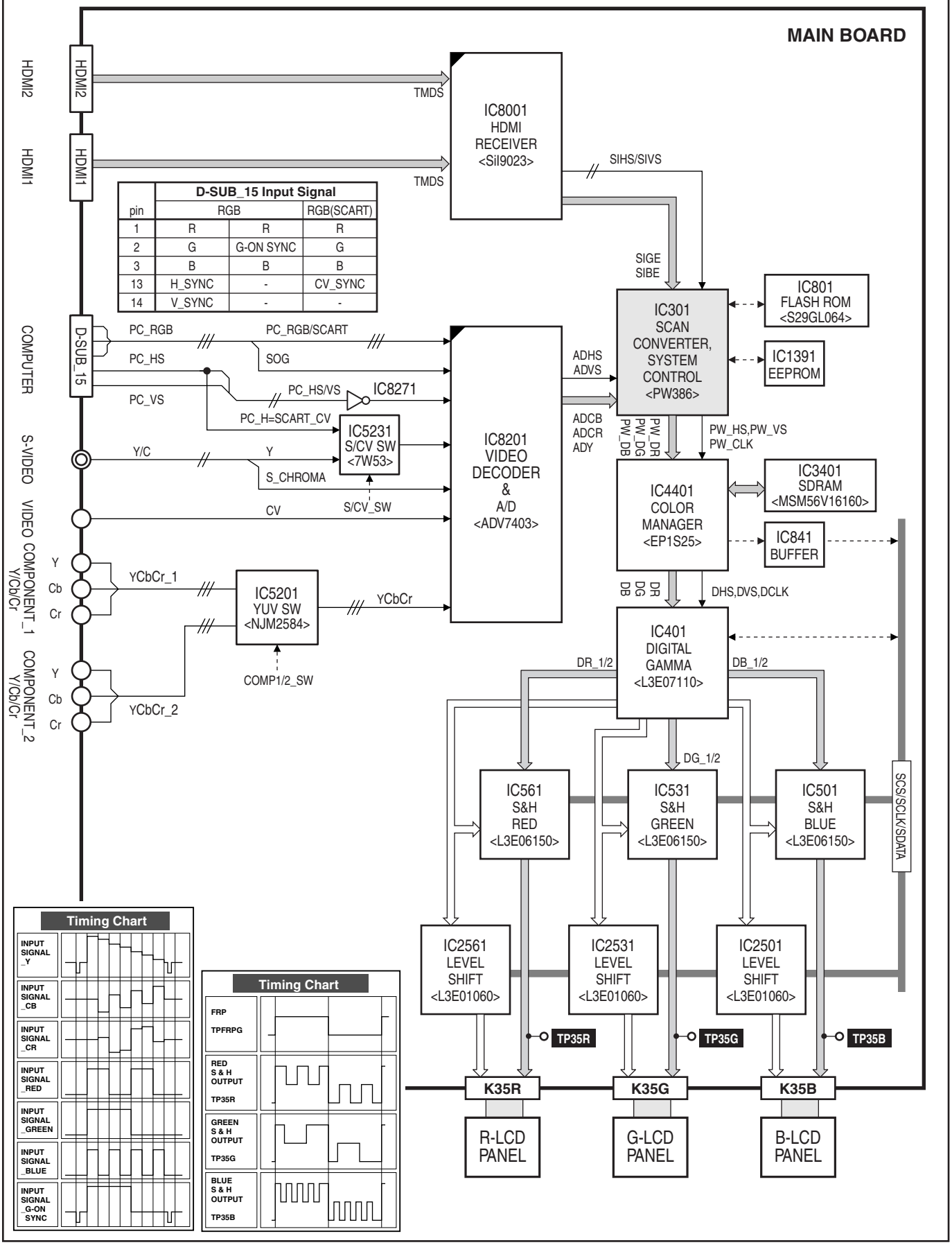
		
Component_Y-IN <C8201-(76)>	**Component_Cb-IN<IC8201-(74)>**	**Component_Cr-IN <C8201-(72)>**
		
PC_R-IN<IC8201-(58)>	**PC_G-IN<IC8201-(54)>**	**PC_B-IN<C8201-(56)>**
		
R-S&H OUT<TP35R >	**G-S&H OUT <TP35G>**	**B-S&H OUT <TP35B>**
		

■ Chassis Block Diagram

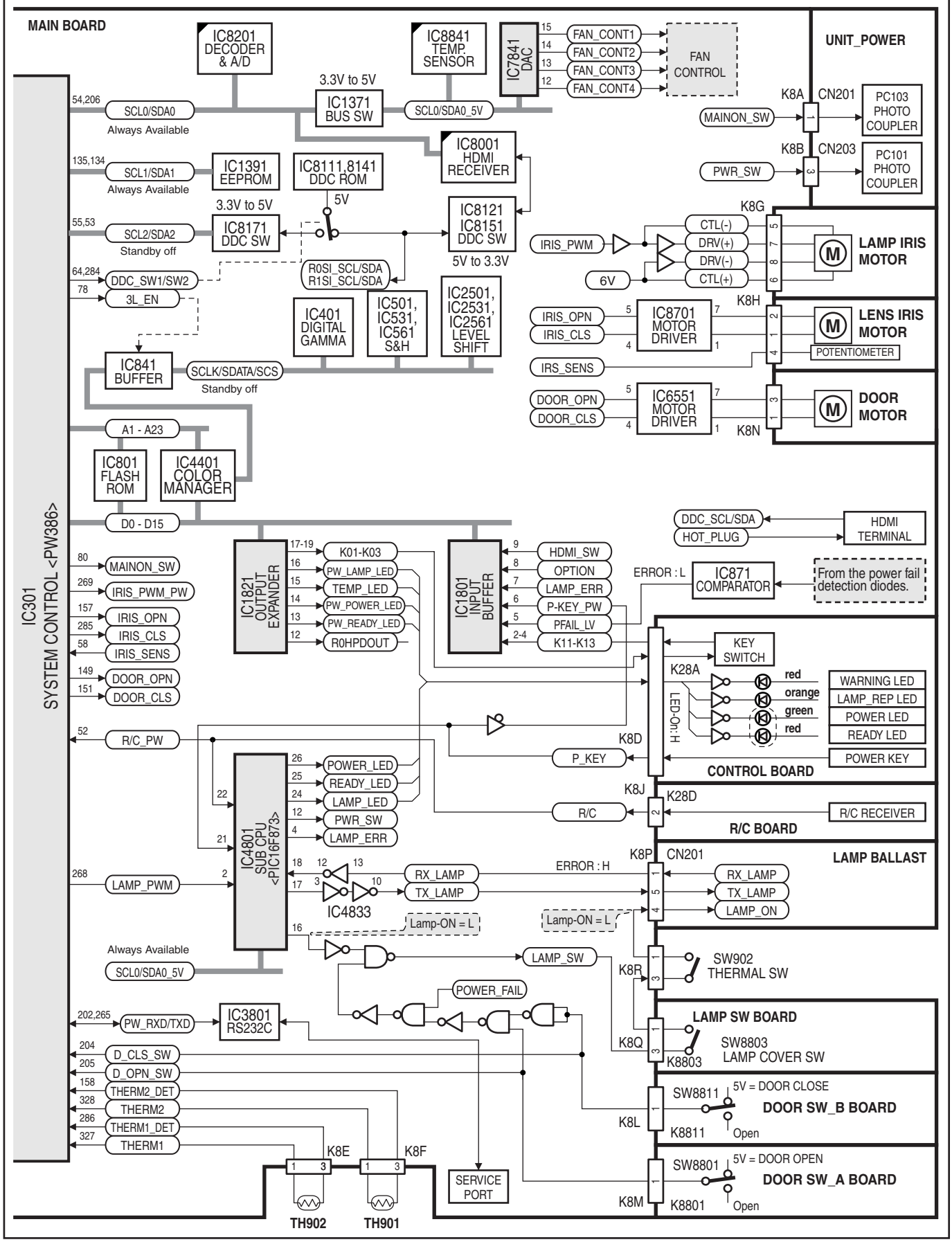
● Chassis Overview



● Video signal processing circuit and LCD panel driving circuit



● System Controls



● Description of System control circuit

Power saving system control

When the projector is standby mode, IC301(Main CPU) is not working and IC4801(Sub CPU) is only working for saving energy. IC4801 is working for power management at standby mode and lamp control at normal mode. (Refer to "Power supply circuit" for detail)

Remote control

R/C signal is sent to pin 52 of IC301(Main CPU) and also sent to pin 22 of IC4801(Sub CPU). R/C signal is received by IC4801 only at standby mode.

Thermal switch

There is the thermal switch (SW902) above the lamp holder to prevent the internal abnormal temperature rising. If the internal temperature reaches near 90°C, the switch will be opened and LAMP_SW signal will be shut off automatically and the lamp operation will be stopped.

Remark;

The thermal switch is not reset to normal automatically even if the internal temperature becomes normal, so in this case you have to reset it manually.

Lamp cover switch

If the lamp cover is not fixed securely, the lamp cover switch(SW8803) will be open, and LAMP_SW signal will be shut off automatically and the lamp operation will be stopped.

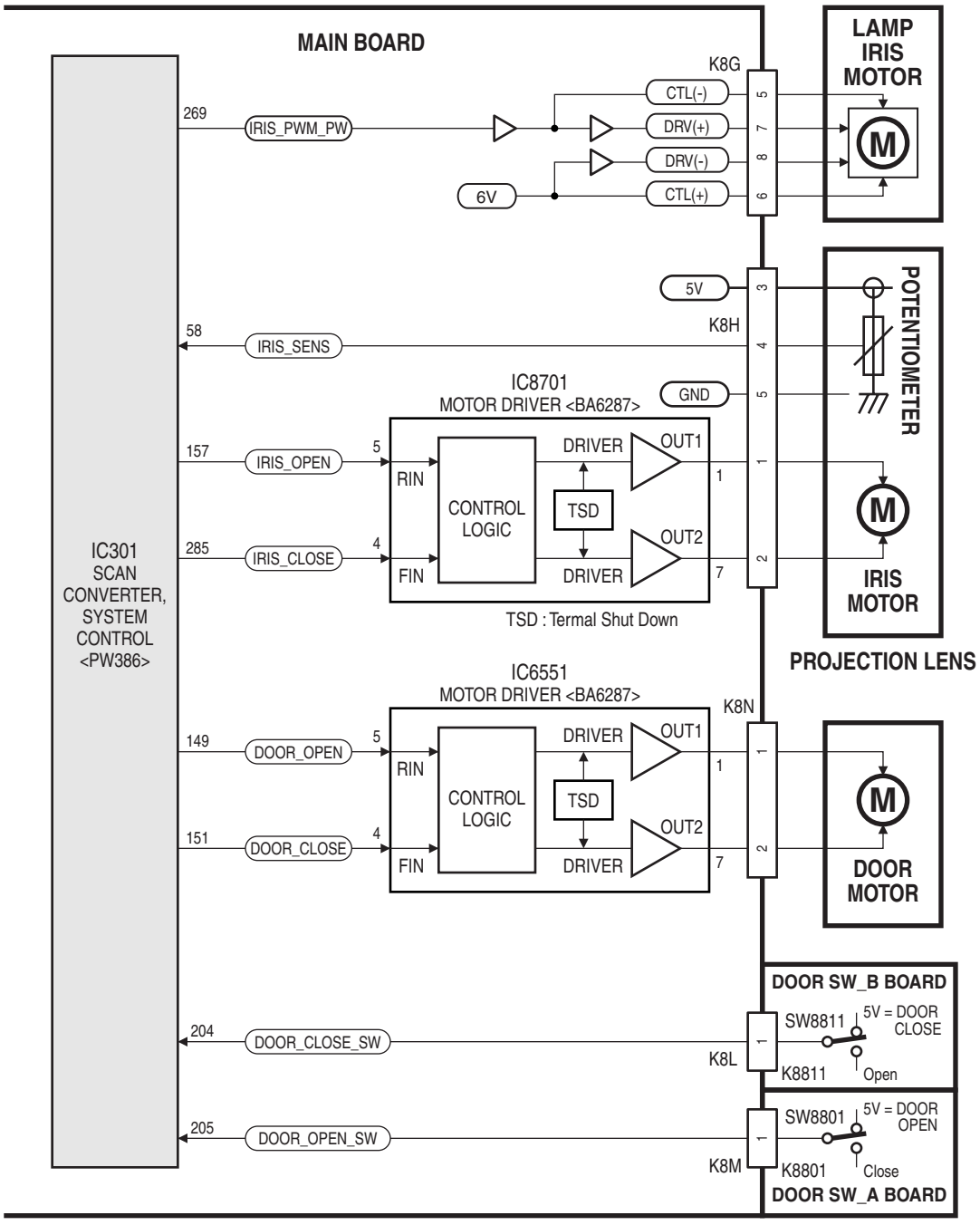
Temperature sensor

The projector provides the temperature sensors "TH901", "TH902" and "IC8841" to prevent the internal temperature rising abnormally and to control the cooling fans. (refer to "Fan control circuit" for detail)
If the internal temperature rising abnormally over the threshold value, the IC301 shuts down after cooling.

Service port

The mini DIN-8 pin jack is used for service the projector with RS-232C. The RS-232C Rx/Tx signals are connected to pins 202 and 265 of IC301 via IC3801(RS-232C RECEIVER/DRIVER). The main program and data are stored in IC801(FLASH ROM). The program can be replaced with new one by specified software "FlashUpgrader".

● Motor driving circuit



MOTOR FUNCTION TABLE of BA6287

FIN	RIN	OUT2	OUT1	OUTPUT MODE	FUNCTION
H	L	L	H	FORWARD MODE	OPEN
L	H	H	L	REVERSE MODE	CLOSE
H	H	L	L	BRAKE MODE	BRAKE
L	L	OPEN	OPEN	STAND-BY MODE	STAND-BY

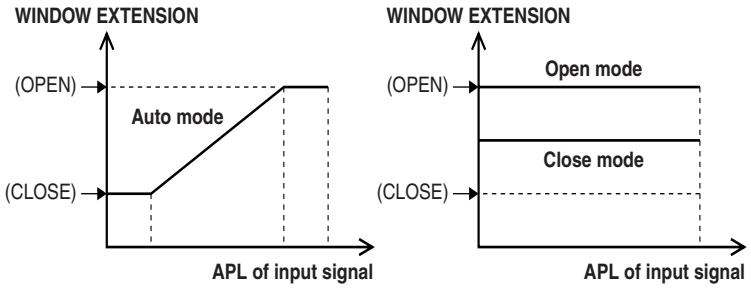
● Description of Motor driving circuit

Lamp Iris Motor and Lens Iris Motor

The lamp iris and the lens iris are equipped for the expansion of visible contrast level. The operation of them is varied according to "Image Level Selection" and their user menu.

Lamp Iris Motor

The lamp iris unit is located in the front of lamp. It is controlled by the PWM signal, which is varied based upon the average luminance level of the input image signal, from pin 269 of IC301. When the image becomes darker, the lamp iris will be closed, and when the image becomes brighter, it will be opened.



Lens Iris Motor

The lens iris is located on the projection lens. It is controlled by the IRIS_OPEN/CLOSE signals from pins 157 and 285 of IC301. The IRIS_SENS signal from the potentiometer of the lens iris unit is sent to pin 58 of IC301 and monitored the position of the lens iris.

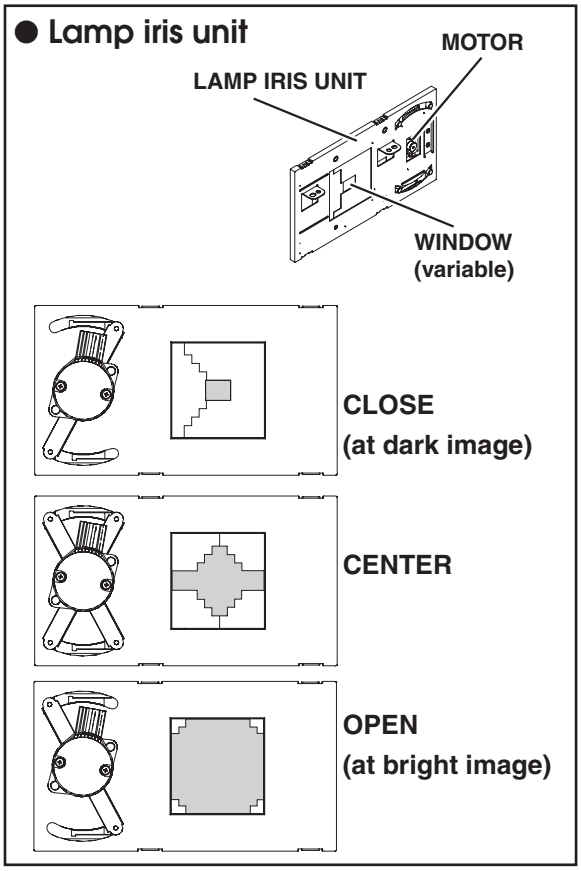
Door Motor

The projector provides 2 door switches. The door switch-A (SW8801 on DOOR SW_A board) turns ON, when the slide shutter is opened. The door switch-B (SW8811 on DOOR SW_B board) turns ON, when the slide shutter is closed.

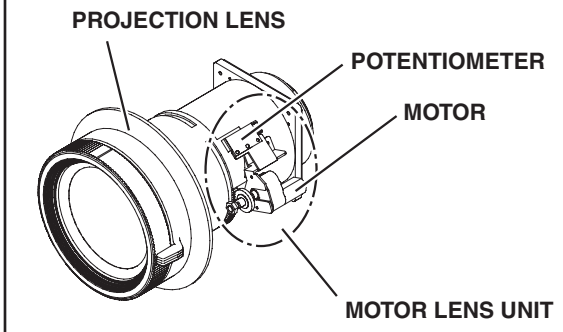
If the slide shutter is half-open or close, the lamp does not light. When turning the projector on, the lamp starts light after SW8801 turning on.

If the slide shutter error occurs during opertion, the POWER indicator will blink orange and the projector will go to stand-by mode after cooling.

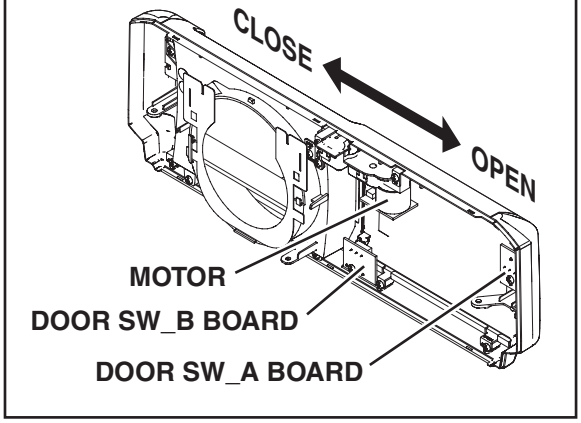
● Lamp iris unit



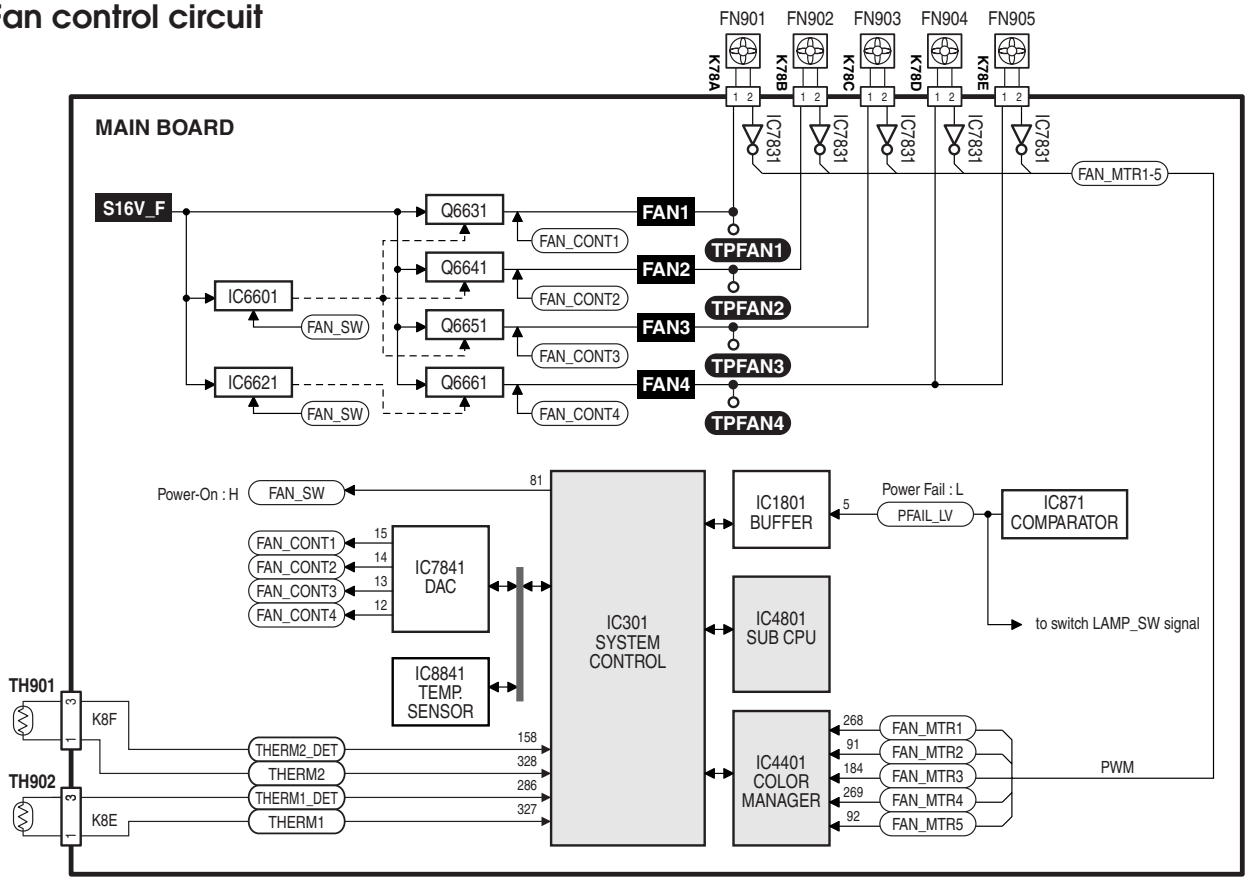
● Lens iris unit



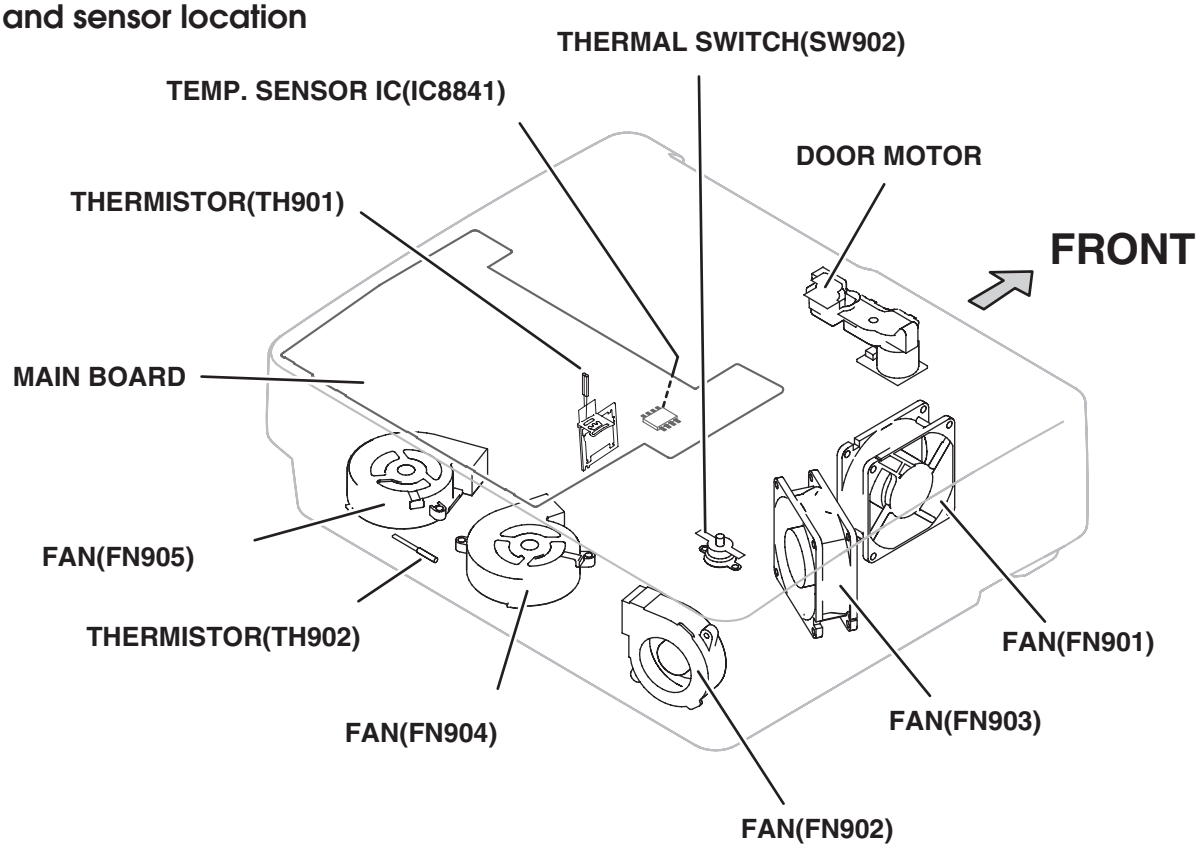
● Door motor



● Fan control circuit



● Fan and sensor location



● Description of Fan control circuit

Fan control circuit

The Fan drive power supplies "FAN1", "FAN2", "FAN3" and "FAN4" are generated from "S16V_F". Each power supply drives fans as follow;

FAN1 ....FN901 for power and ballast exhaust
FAN2 ....FN902 for lamp cooling
FAN3 ....FN903 for lamp exhaust
FAN4 ....FN904 and FN905 for intake and panel cooling

The fan spinning speed is controlled by "FAN_CONT1", "FAN_CONT2", "FAN_CONT3" and "FAN_CONT4" from pins 1, 2, 3 and 4 of IC7841(DAC).

Power failure protection of Fan

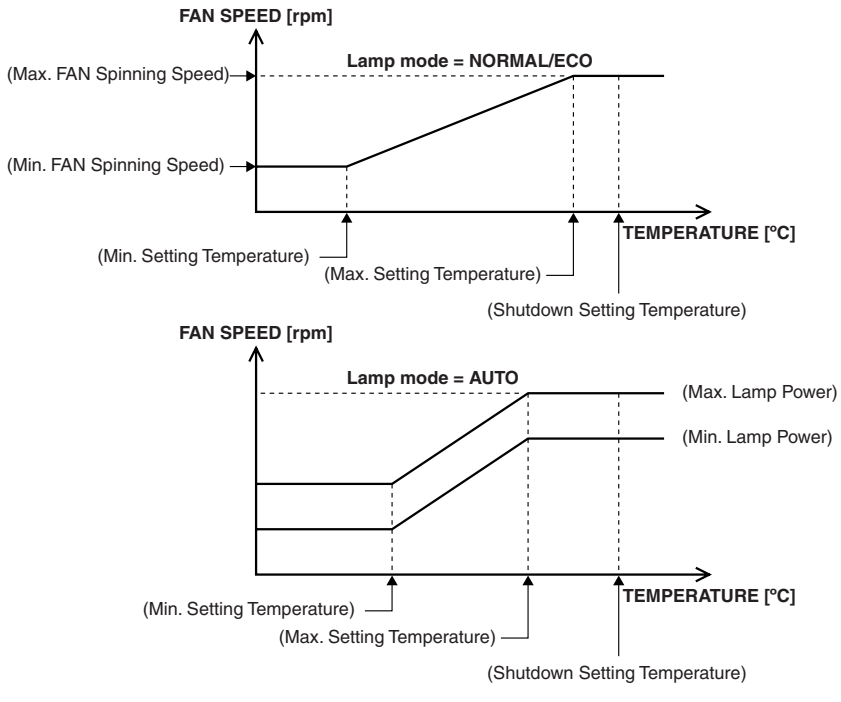
The alarm output signals(PWM signals) from the fans are connected to IC4401(Color Manager) and IC4401 monitors the fan spinning speed for safety.

When an abnormality occurs on any one of the fans, for example the fan spinning speed is lower than the specified speed, IC301 shuts down the projector. If a fan connector is not connected firmly, IC301 also shuts down the projector.

Temperature sensor for Fan control

TempA - TH902 around the intake fan "FN904"and "FN905" for outer temperature of the projector
TempB - IC8841(above the lamp) on the Main board for optical parts
TempC - TH901 on the polarized glass (IN-B) for panel and polarized glass temperature

The temperature sensors measure surrounding temperature and sends data to IC301. IC301 controls the proper fan spinning speed based upon these temperature data. Also, when a temperature rises over a specified value, IC301 judges that there is abnormal internal temperature and turns off the projector.

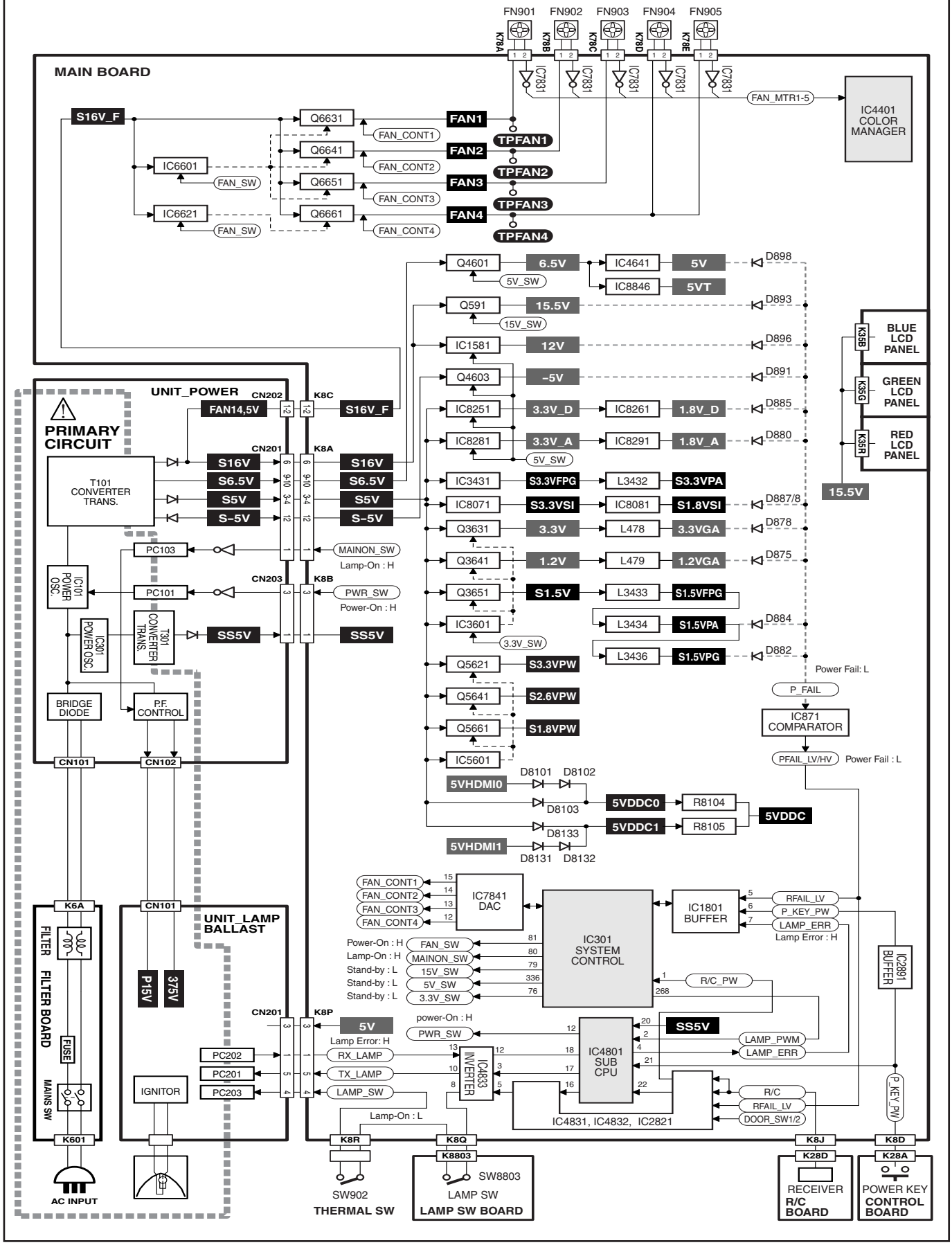


Temperature vs Fan spinning speed

The fan spinning speed is controlled with the temperature and the lamp power.

■ Power Supply Lines

● Power supply circuit and Protection circuit



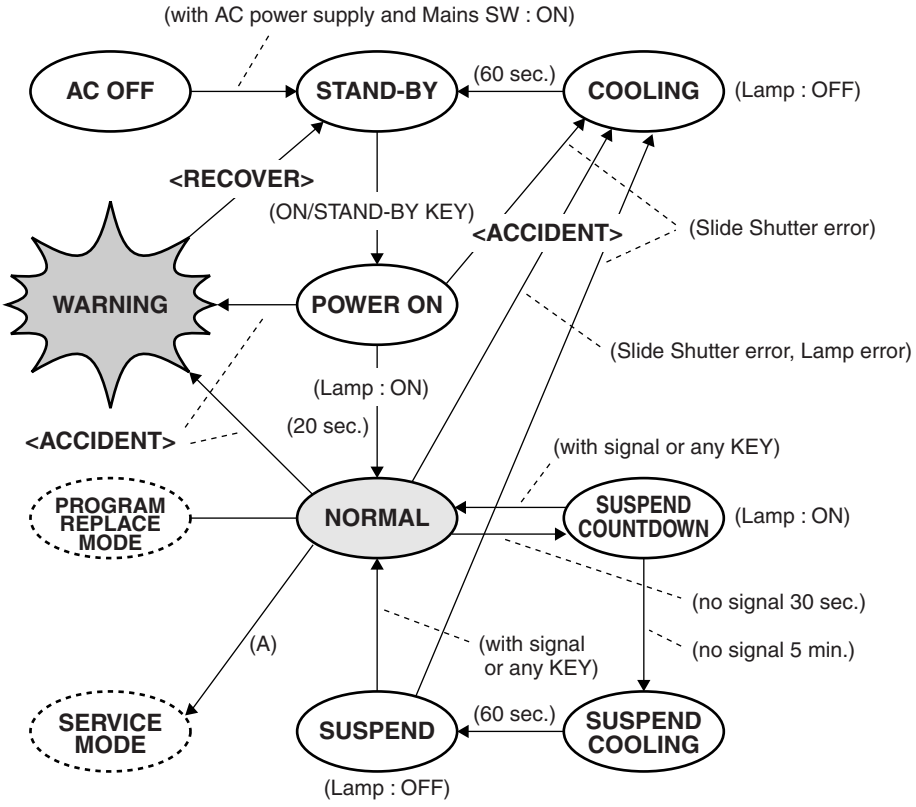
● Description of Power supply circuit

When the projector is standby mode, IC301(Main CPU) is not working and IC4801(Sub CPU) is only working for saving energy.
When the projector is connected to outlet with AC power cord and the Mains SW is switched to ON, SS5V line is supplied to to standby circuit, including IC4801. IC4801 is waiting for the POWER ON/STAND-BY key input or remote control signal.
When the projector is turned on, "PWR_SW" signal (Power ON:H) from pin 12 of IC4801 is sent to the UNIT_POWER, and then the switching power supply circuit starts operation. "MAINON_SW" signal (Lamp ON:H) from pin 80 of IC301 is also sent to UNIT_POWER, and then the lamp power supply circuit starts operation.
The "5V_SW", "3.3V_SW", "15V_SW" and "FAN_SW" signals are also sent to the power supply circuits.

Power failure protection of secondary power circuit

The projector provides a protection circuit to prevent the secondary failure when the power failure, fans failure or temperature failure occurs on the projector. The power failure detection lines are connected to the main power supplies. When a failure occurs, IC301 receives the power failure detection signals "POWER_FAIL" through the power failure detection lines and "MAINON_SW" signal (Lamp OFF:L) and "PWR_SW" signal (Power OFF:L) are supplied to the UNIT_POWER to stop the power supply operation, and the lamp operation is stopped with "LAMP_SW" signal (Lamp OFF:H).

● Flow chart of projector condition



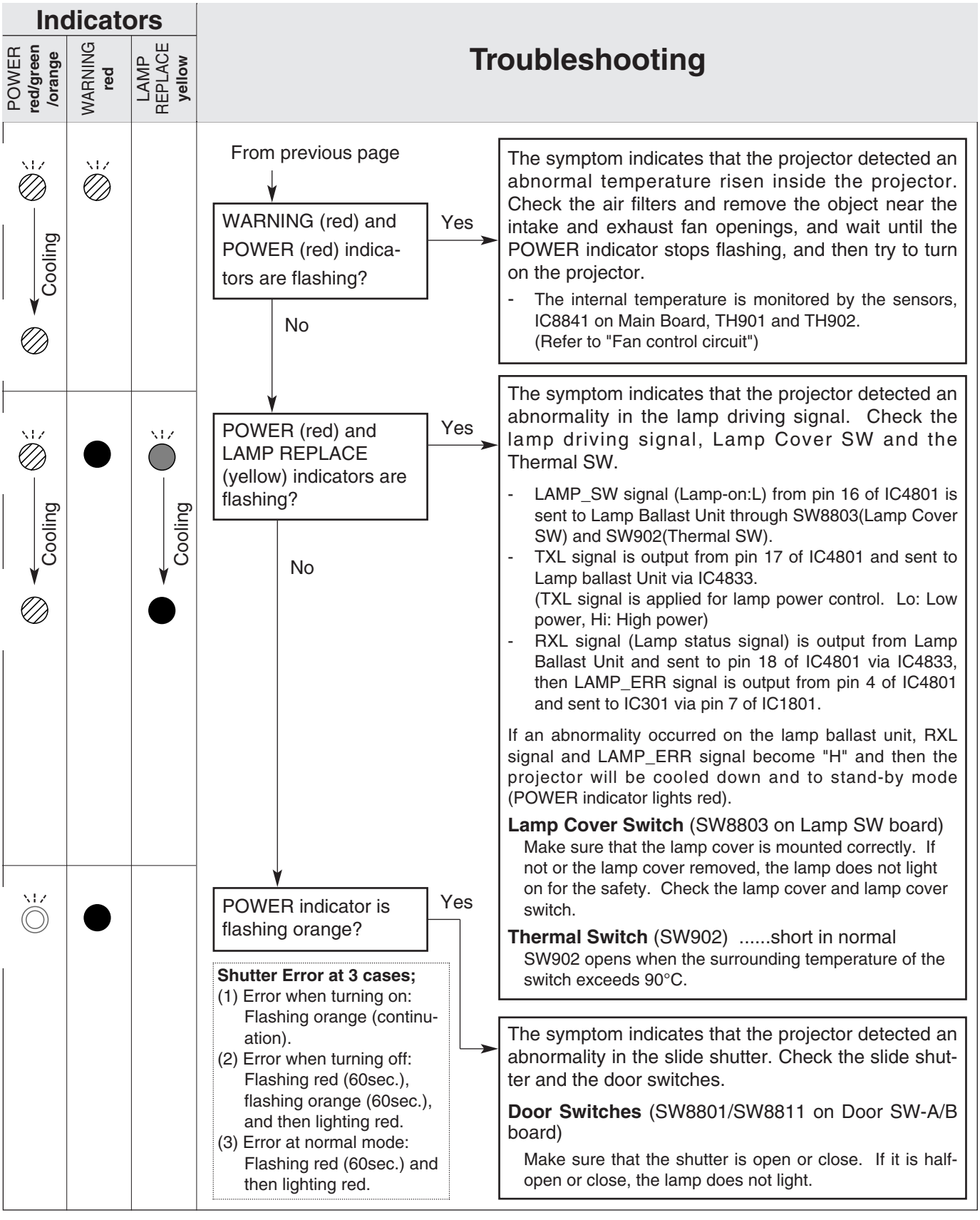
(A) : Press MENU + INPUT KEY for 5 sec. (or press MENU KEY on R/C for 20 sec.)
--> [S] mark display (for 5 sec.)
--> UP + DOWN KEY or R/C SCREEN KEY for 3 sec.
(Return to normal with ON/STAND-BY KEY)

■ Troubleshooting

● No Power

This projector provides a function which can be specified a defective area simply by indicating the LEDs on the control panel. Connect the AC cord and turn the projector on and then check the LED indication.

Indicators		Troubleshooting
POWER **red/green**	WARNING **red**	
●	●	Does a indicator flash or light? — No → The primary power supply circuit does not operate properly. Yes → Is fuse (F601) broken? — Yes → Check Varistor (VA611). Check Power Board. No → Check SS5V power supply line. - When the main power switch is ON, SS5V line is supplied to IC4801(Sub CPU).
⊘	⊘	POWER (red) and WARNING (red) indicators are lighting? — Yes → The symptom indicates that the projector detected an abnormality in the cooling fan operation or in the power supply secondary circuits. Check fan operation and power supply lines, and the driving signal status. - POWER_FAIL (Error:L) signals are sent to IC301 via IC871 and IC1801, then IC301 shuts down the power supply circuit. Check following items An abnormality occurs on the secondary power supply lines → Check power supply lines, S5V,S-5V, S16V, etc. on the Main board. - Refer to the diagram "Power Supply Lines". An abnormality occurs on the fan control circuits. → Power failure detection diodes detect the fan operation stop. Check FN901/902/903/904/905 and peripheral circuit. Check connectors K8E/K8F from TH901/TH902. - Refer to the diagram "Fan control circuit". An abnormality occurs on power starter signals. → Check power starter signals as follows: - PWR_SW signal (Power-on:H) is output from pin 12 of IC4801 and sent to the Power Board and S16V, S16V_F, S6.5V, S5V, S-5V lines are supplied. - MAINON_SW signal (Power-on:H) is output from pin 80 of IC301 and sent to the Power Board and lamp ballast 375V line is supplied. - 5V_SW signal (Power-on:H) is output from pin 336 of IC301 and sent to IC1581, IC8251, IC8281, Q4601, Q4603, then 12V, 3.3V_D, 3.3V_A, -5V, 6.5V lines are supplied. - 3.3V_SW signal (Power-on:H) is output from pin 76 of IC301 and sent to IC3601, then 3.3V, 1.2V lines are supplied. - 15V_SW signal (Power-on:H) is output from pin 79 of IC301 and sent to Q591, then 15.5V line is supplied. - FAN_SW signal (Power-on:H) is output from pin 81 of IC301 and applied to the Fan power supply circuit. To next page


Indicators
POWER red/green /orange
WARNING red
LAMP REPLACE yellow
Troubleshooting
Cooling
Cooling
Cooling
From previous page
WARNING (red) and POWER (red) indicators are flashing?
Yes
No
POWER (red) and LAMP REPLACE (yellow) indicators are flashing?
Yes
No
POWER indicator is flashing orange?
Yes
Shutter Error at 3 cases;
(1) Error when turning on: Flashing orange (continuation).
(2) Error when turning off: Flashing red (60sec.), flashing orange (60sec.), and then lighting red.
(3) Error at normal mode: Flashing red (60sec.) and then lighting red.
The symptom indicates that the projector detected an abnormal temperature risen inside the projector. Check the air filters and remove the object near the intake and exhaust fan openings, and wait until the POWER indicator stops flashing, and then try to turn on the projector.
- The internal temperature is monitored by the sensors, IC8841 on Main Board, TH901 and TH902. (Refer to "Fan control circuit")
The symptom indicates that the projector detected an abnormality in the lamp driving signal. Check the lamp driving signal, Lamp Cover SW and the Thermal SW.
- LAMP_SW signal (Lamp-on:L) from pin 16 of IC4801 is sent to Lamp Ballast Unit through SW8803(Lamp Cover SW) and SW902(Thermal SW).
- TXL signal is output from pin 17 of IC4801 and sent to Lamp ballast Unit via IC4833. (TXL signal is applied for lamp power control. Lo: Low power, Hi: High power)
- RXL signal (Lamp status signal) is output from Lamp Ballast Unit and sent to pin 18 of IC4801 via IC4833, then LAMP_ERR signal is output from pin 4 of IC4801 and sent to IC301 via pin 7 of IC1801.
If an abnormality occurred on the lamp ballast unit, RXL signal and LAMP_ERR signal become "H" and then the projector will be cooled down and to stand-by mode (POWER indicator lights red).
Lamp Cover Switch (SW8803 on Lamp SW board)
Make sure that the lamp cover is mounted correctly. If not or the lamp cover removed, the lamp does not light on for the safety. Check the lamp cover and lamp cover switch.
Thermal Switch (SW902) .....short in normal
SW902 opens when the surrounding temperature of the switch exceeds 90°C.
The symptom indicates that the projector detected an abnormality in the slide shutter. Check the slide shutter and the door switches.
Door Switches (SW8801/SW8811 on Door SW-A/B board)
Make sure that the shutter is open or close. If it is half-open or close, the lamp does not light.
• • • lights green.
• • • flashes green.
• • • lights red.
• • • flashes red.
• • • off
• • • flashes orange.
• • • flashes yellow.

● No Picture

Check following steps.

SG: Description of visual signal flow
Sync: Description of sync signal flow

No picture with all of input sources — Yes →

Check signal processing stage and LCD driving stage;

Check RGB VID signals at test points TP35R, TP35G, TP35B.
Check power supply circuit 15.5V and peripheral circuit.
Check IC501, IC531, IC561, IC2501, IC2531, IC2561, IC401, IC4401, IC301 and peripheral circuits.

SG: Digital RGB signals from IC8001 are sent to IC301, and the other signals are A/D converted in IC8201 and sent to IC301. They are scaled in IC301. After correcting for picture quality in IC4401 and IC401, they are sent to IC501, IC531, IC561(sampling & holding, D/A conversion).
The panel driving signals are shifted the level up to 15V by IC2501, IC2531, IC2561.
Sync: PW_HS/VS/CLK from IC301 to IC4401, DHS,DVS,DCLK from IC301 to IC401

No ↓

No picture with COMPONENT1/2 (YCbCr) input sources — Yes →

Check Component source input stage;

Check IC5201, IC8201 and peripheral circuit.
Check sync signals at test points TPADHS and TPADVS.

SG: Component_1/2 signals are selected in IC5201, with COMP_1/2 signal (Component_1 = Low). The selected signals are sent to IC8201. They are A/D-converted in IC8201 and sent to IC301.
Sync: Y/Cb/Cr signals are sync-separated in IC8201, and ADHS and ADVS signals are sent to IC301.

No ↓

No picture with HDMI (RGB digital) input source — Yes →

Check HDMI (RGB digital) source input stage;

Check IC8001 and peripheral circuit.
Check sync signals SIHS and SIVS.
Check 5VHDMI power supply line.

SG: TMDS data signals are converted to RGB digital signals in IC8001, and sent to IC301.
Receiving video content encrypted with HDCP(High-bandwidth Digital Content Protection), IC8001 reads the HDCP keys and it allows the signal processing.
Sync: SIHS and SIVS signals from IC8001 are sent to IC301.

No ↓

Go to next page

From previous page

No picture with Computer (RGB analog) input source

Yes →

Check Computer source input stage;

Check IC8201 and peripheral circuit.
Check sync signals <ADHS> and <ADVS>.

SG: PC_RGB signals are sent to IC8201. They are A/D-converted in IC8201 and sent to IC301.
Sync: PC_HS/VS signals are sent to IC8201 via IC8271(Inverter IC) and ADHS and ADVS signals are sent to IC301.

No ↓

No picture with Computer (RGB SCART) input source

Yes →

Check Computer source input stage;

Check RGB SCART signals at test points TP-RIN/GIN/BIN.
Check IC8201, IC5231 and peripheral circuit.
Check sync signals <ADHS> and <ADVS>.

SG: RGB SCART signals are A/D-converted in IC8201 and sent to IC301.
Sync: SCART_CV signal at 13 pin of D-sub_15 is selected in IC5231, with S/CV_SW signal(SCART = High). The selected signal is sent to IC8201. It is sync-separated in IC8201, and ADHS and ADVS signals are sent to IC301.

No ↓

No picture with S-VIDEO input source

Yes →

Check AV source input stage;

Check Y/C signals at IC8201, IC5231 and peripheral circuit.
Check sync signals <ADHS> and <ADVS>.

SG: Y signal is selected in IC5231, with S/CV_SW signal(S-VIDEO = Low). The selected signal is sent to IC8201. S_CHROMA signal is sent to IC8201. They are A/D-converted in IC8201 and sent to IC301.
Sync: Y/C signals are sync-separated in IC8201, and ADHS and ADVS signals are sent to IC301.

No ↓

No picture with VIDEO input source

Yes →

Check AV source input stage;

Check IC8201 and peripheral circuit.
Check sync signals <ADHS> and <ADVS>.

SG: Composite video signal is sent to IC8201, and sent to IC301.
Sync: Composite video signal is sync-separated in IC8201, and ADHS and ADVS signals are sent to IC301.

■ Control Port Functions

● I/O Port Table of Main CPU (IC301, PW386)

Pin No.	Name	Function Name	Function	Polarity	I/O
268	Port A7	LAMP_PWM	PWM Output to Sub_CPU	PWM	O
269	Port A6	IRIS_PWM	PWM Output to Lamp iris	PWM	O
55	Port A5	SCL2			I/O
53	Port A4	SDA2			O
135	Port A3	SCL1			I/O
134	Port A2	SDA1			O
54	Port A1	SCL0			I/O
206	Port A0	SDA0			O
203	Port B7	WP11			I/O
204	Port B6	D-CLOSE_SW			I
266	Port B5	PIC_POW_M		Not used	-
56	Port B4	NCONFIG			O
132	Port B3	CONF_DONE			O
133	Port B2	NSTATUS			O
267	Port B1	MICON_CLB			O
205	Port B0	D-OPEN_SW			I
222	Port H7	IRM_RST			O
153	Port H6	SIRST			O
213	Port H5	AD_RST			O
64	Port H4	DDC_SW			O
151	Port I5	DOOR_CLOSE			O
286	Port I4	THERM1_DET			I
82	Port I3	WP2			
149	Port I2	DOOR_OPEN			O
156	Port I1	THERM2_DET			I
285	Port I0	IRIS_CLOSE			O
80	Port J5	MAINON_SW			O
73	Port J4	COMP1/2_SW	Component-1/Component-2 switch	COMP1 = L	O
157	Port J3	IRIS_OPEN			O
336	Port J2	5V_SW		ON = H	O
81	Port J1	FAN_SW		ON = H	O
72	Port J0	S/CV_SW	S-VIDEO/SCART switch	S-VIDEO = L	O
78	Port K5	3L_EN			O
283	Port K4	FPGA_RST			O
76	Port K3	3.3V_SW		ON = H	O
155	Port K2	EXIO_OE			
79	Port K1	15V_SW		ON = H	O
152	Port K0	CLK_OE			
52	IRRCVR0	R/C	IR Receiver Input 0		I
202	RXD	RXD			I/O
265	TXD	TXD			I/O
92	ROMOE	ROMOE	ROM output enable	L: external	O
13	ROMWE	ROMWE	ROM write enable		O
96	CS1	CS1	I/O Expander Chip Select (Input)	Active Low	I/O
171	CS0	CS0	I/O Expander Chip Select (Output)	Active Low	I/O
207	NMI	NMI	Non-maskable Interrupt	Active High	I
136	RESETB	RESET	Master reset	Active Low	I/O
57	EXTRSTEN	EXTRSTEN	External reset enable	H: external	I
256	IN0RO9	HDMI2_SW			I
225	IN0GO9	R1HPDOUT			O
154	IN0BO8	PFAIL_HV			I
284	IN0GO8	DDC_SW2			O

● Sub CPU (IC4801, PIC16F873)

Pin No.	Name	Function Name	Function	Polarity	I/O
1	MCLR/VPP	RESET			I
2	RA0/AN0	LAMP_PWM	APL Level Input		I
3	RA1/AN1	CPU_ADCIN	From lamp iris for factory usage		I
4	RA2/AN2	LAMP_ERR	Lamp Error Output	Lamp Error = H	O
5	RA3/AN3	(5V)			O
6	RA4/TOCKI				O
7	RA5/AN4				I
9	OSC1	XTAL			-
10	OSC2	XTAL			-
11	RC0	CPU_RESET			-
12	RC1	PWR_SW		Power ON = H	-
13	RC2	PIC_POW_M		Not used	I
14	RC3	SCL0_5V			
15	RC4	SDA0_5V			-
16	RC5	LAMP_SW		Lamp ON = L	O
17	RC6	TX_LAMP			O
18	RC7	RX_LAMP			I
21	RB0	P_KEY_PIC	Power Key Input		I
22	RB1	RC_IN_PIC	Remote Control Input		I
23	RB2				-
24	RB3	PIC_LAMP_LED			O
25	RB4	PIC_READY_LED			O
26	RB5	PIC_POWER_LED			O
27	RB6	RB6_PIC	Service		I
28	RB7	RB7_PIC	Service		I

● IIC Bus D/A Converter

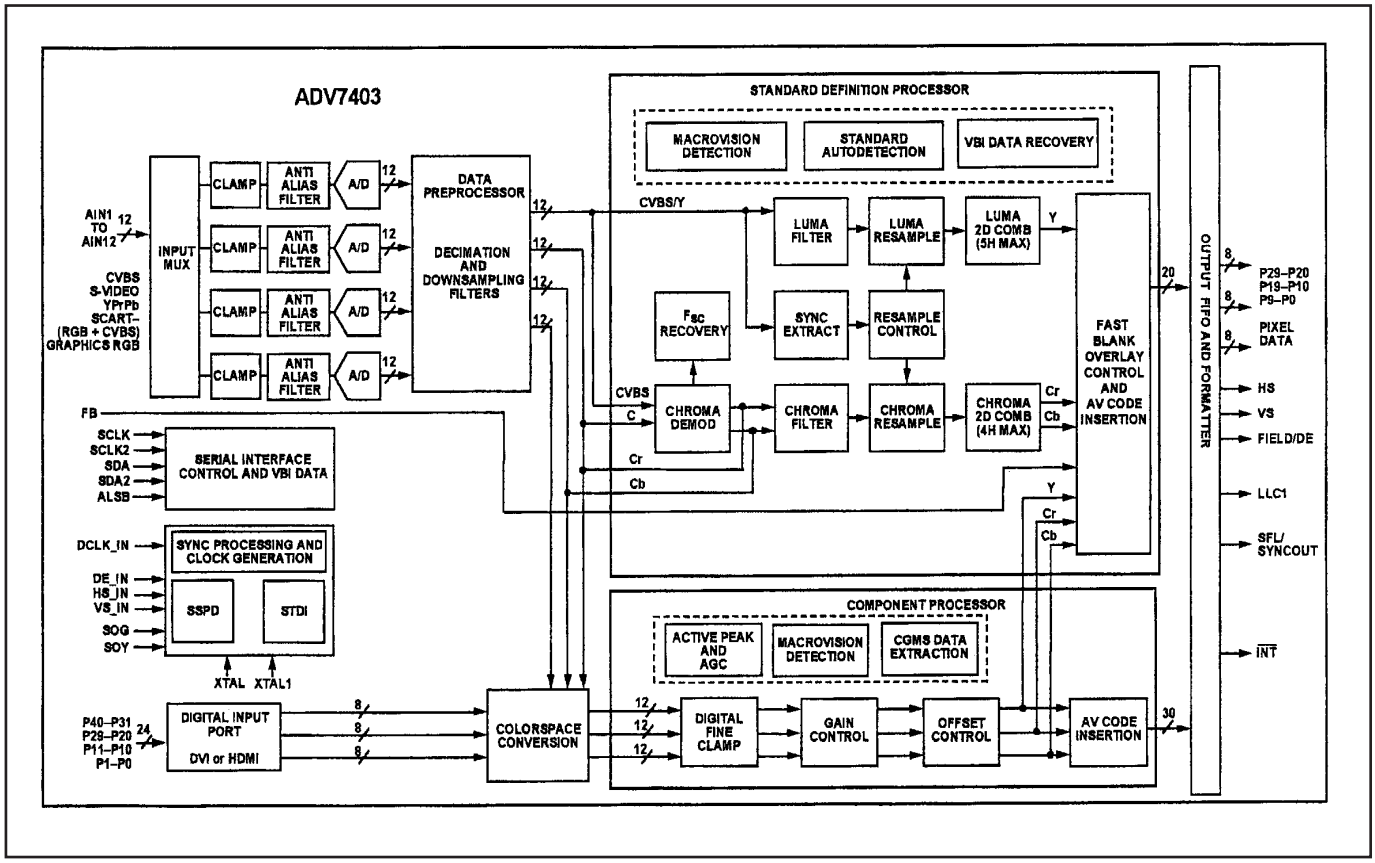
IC Ref. No.	Pin	I/O	Signal Name	Function	Note
IC7841	1	O	FAN_CONT4		
	2	O	FAN_CONT3		
	3	O	FAN_CONT2		
M62334	4	O	FAN_CONT1		
	6	I	SDA0_5V		
	7	I	SCL0_5V		
	8	-	Vcc		

● Parallel Bus I/O Expander

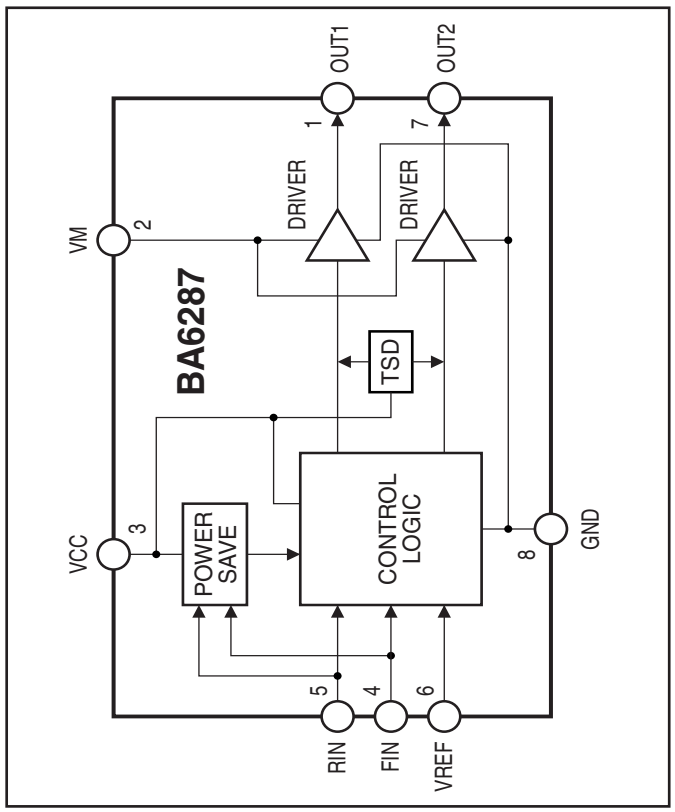
IC Ref. No	Pin	I/O	Signal Name	Function	Note
IC1801	2	I	K11	Key Input 1	
	3	I	K12	Key Input 2	
TC74LCX541	4	I	K13	Key Input 3	
	5	I	POWER_FAIL	Power Fail Input	Power Fail: Low
	6	I	P-KEY_PW	Power key Input	
	7	I	LAMP_ERR	Lamp Error Input	Lamp Error: High
	8	I	OPTION	Option Input	
	9	I	HDMI_SW		
IC1821	12	O	HOT_PLUG	HDMI	
	13	O	READY_LED		
TC74LCX574	14	O	POWER_LED		
	15	O	TEMP_LED		
	16	O	LAMP_LED		
	17	O	K03	Key Scan Output	
	18	O	K02	Key Scan Output	
	19	O	K01	Key Scan Output	

■ IC Block Diagrams

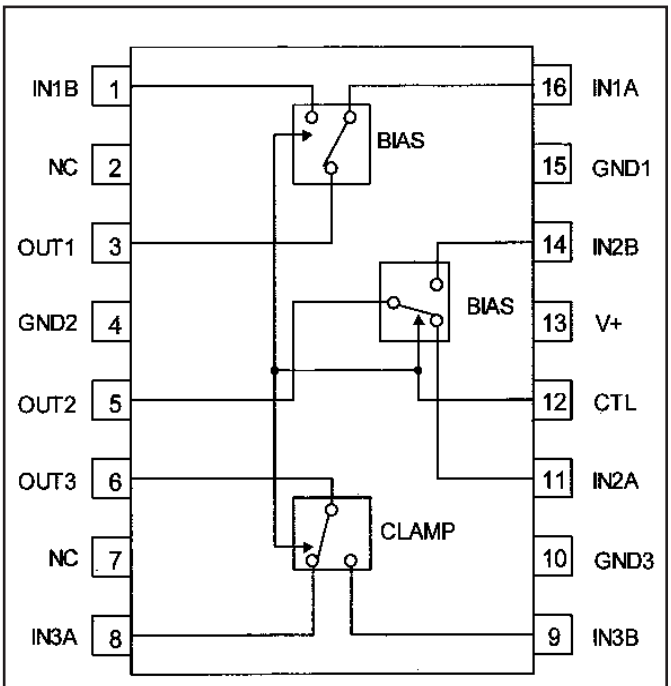
● ADV7403 <Video Decoder and RGB Digitizer, IC8201>



● BA6287F <Motor Driver, IC6551, IC8701>

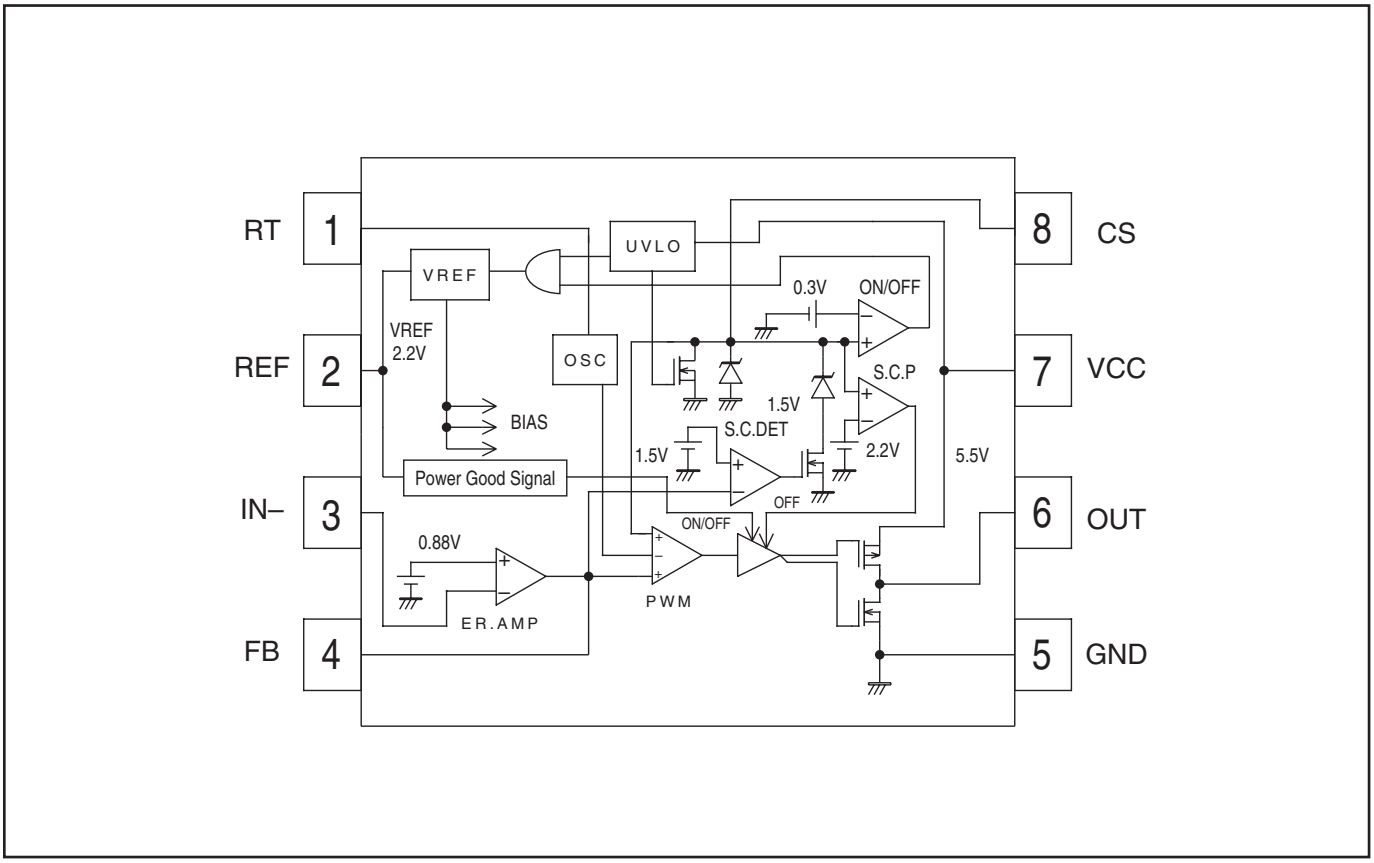


● NJM2584 <Video Switch, IC5201>

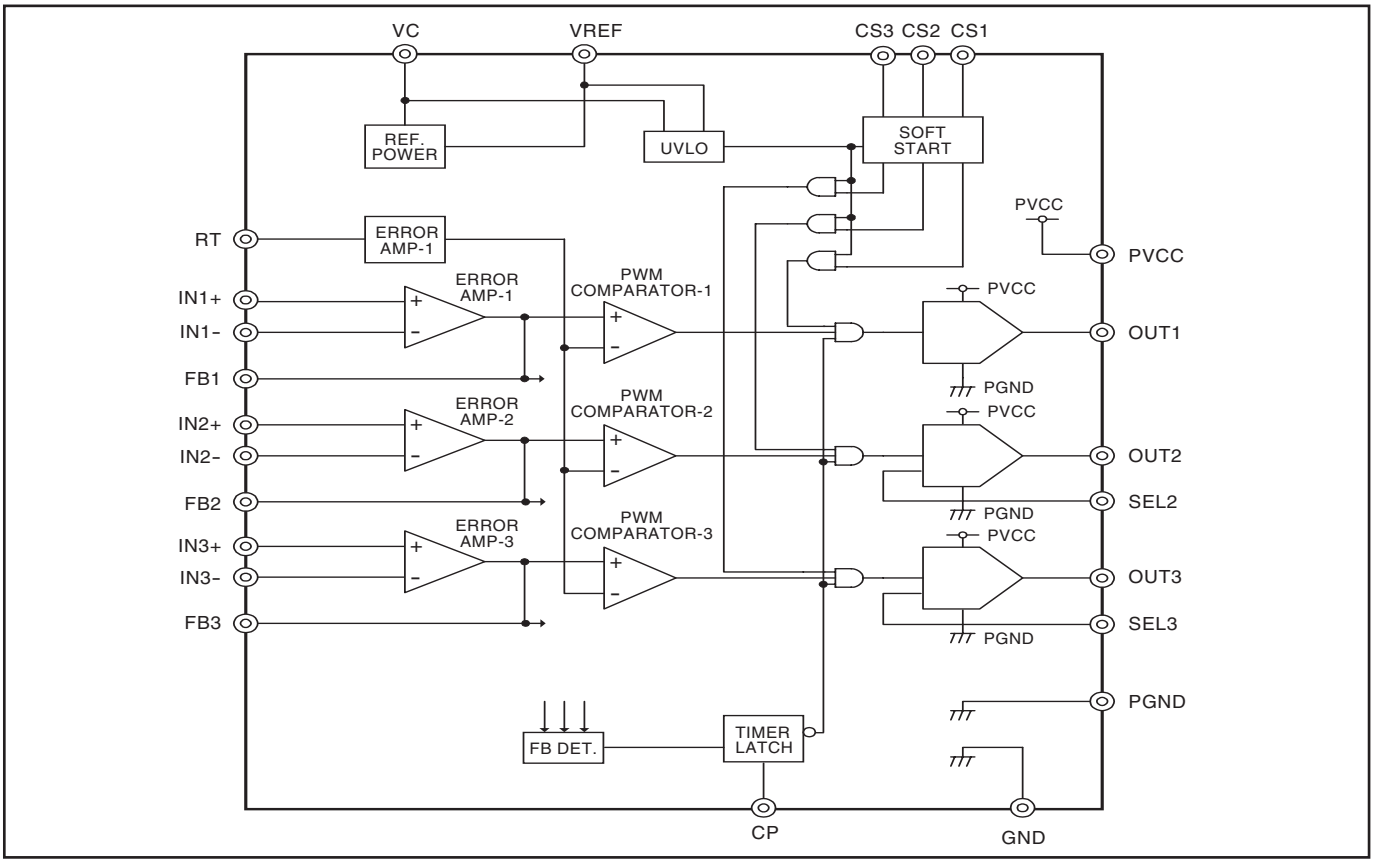


Control Pin
H = B channel output
L = A channel output
OPEN = A channel output

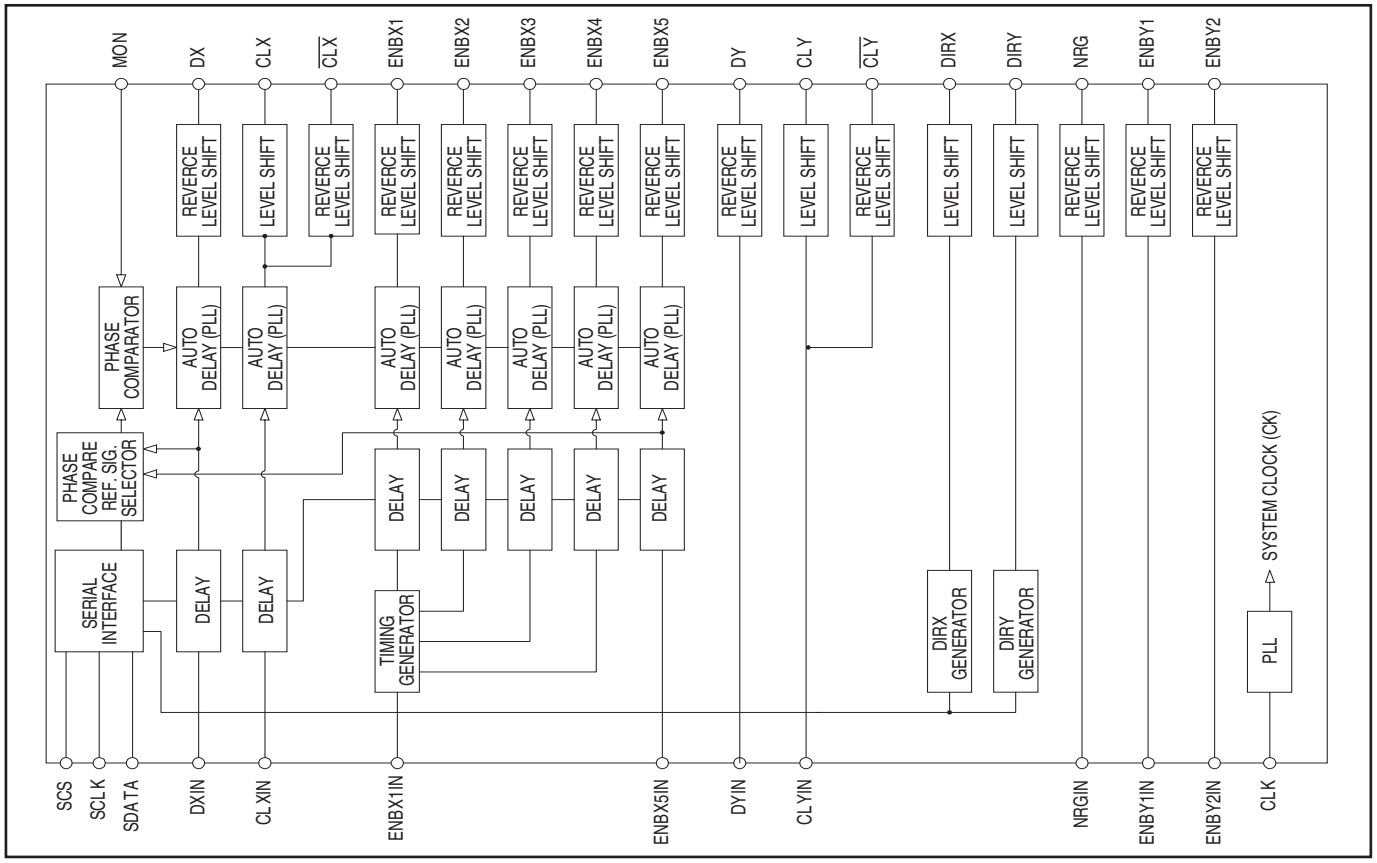
● FA7701 <Switching power Supply Controller, IC6601>



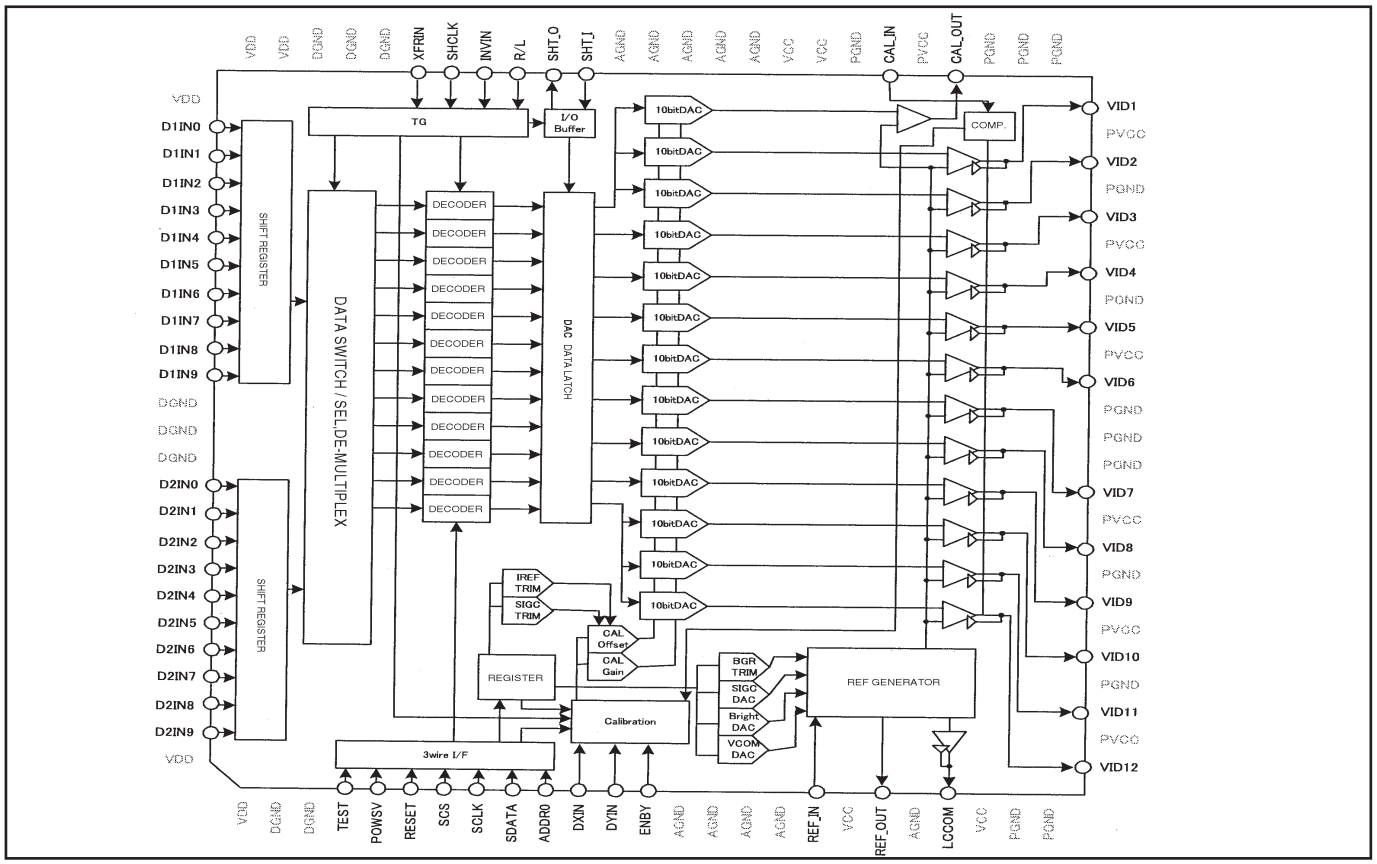
● FA7711 <Switching power Supply Controller, IC6621>



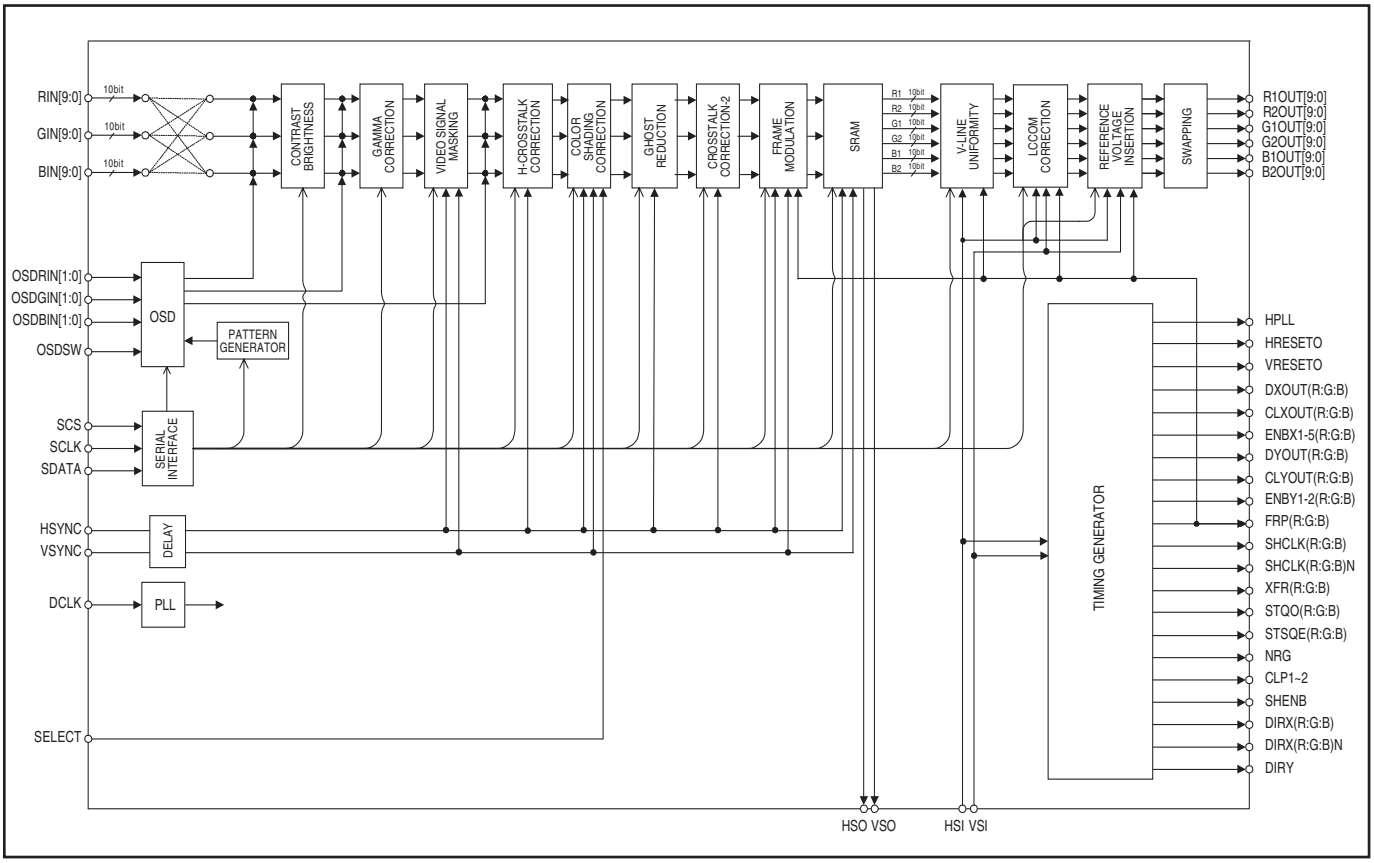
● L3E01060 <Level Shift, IC2501, IC2531, IC2561>



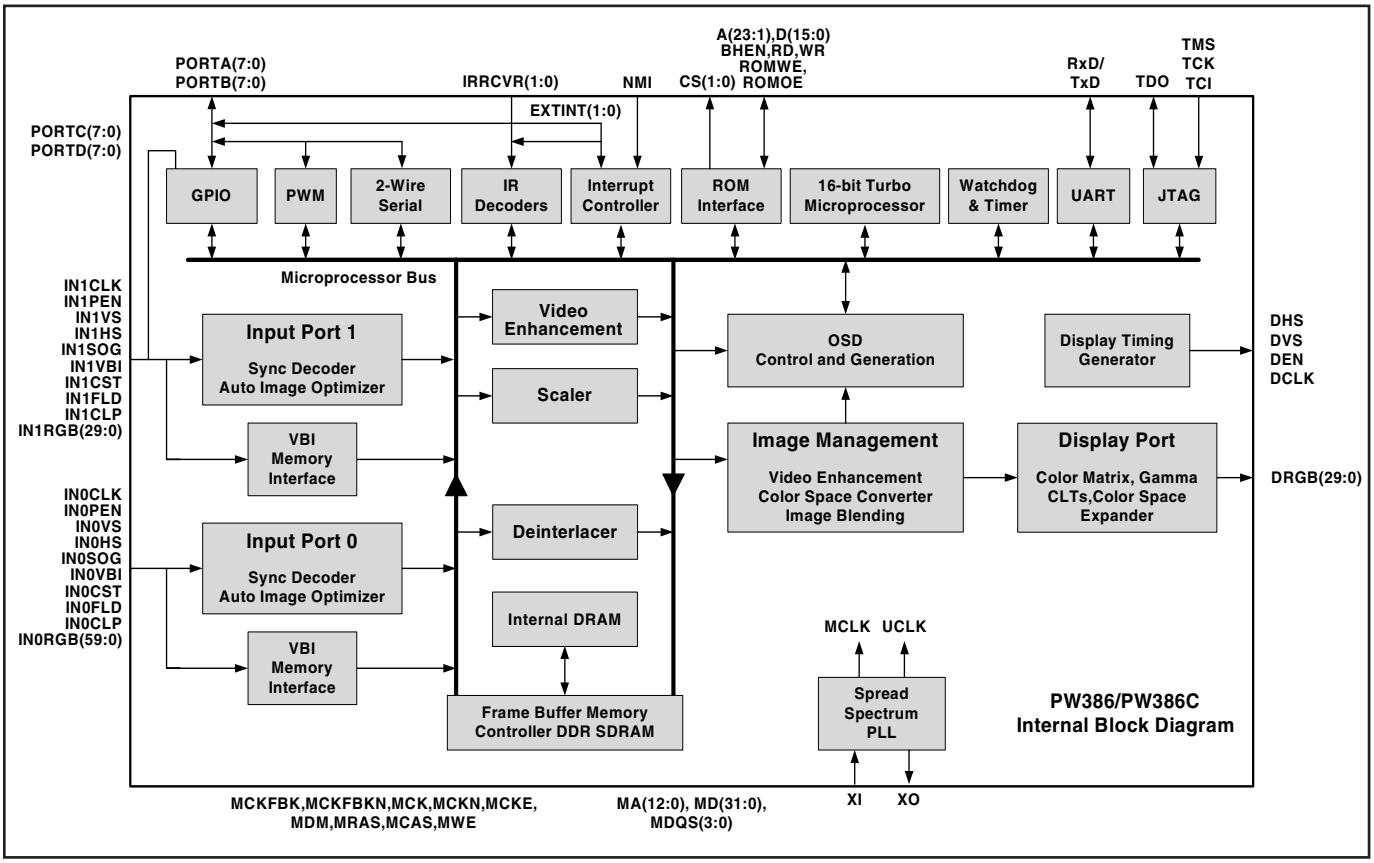
● L3E06150 <Sample & Hold, IC501, IC531, IC561>



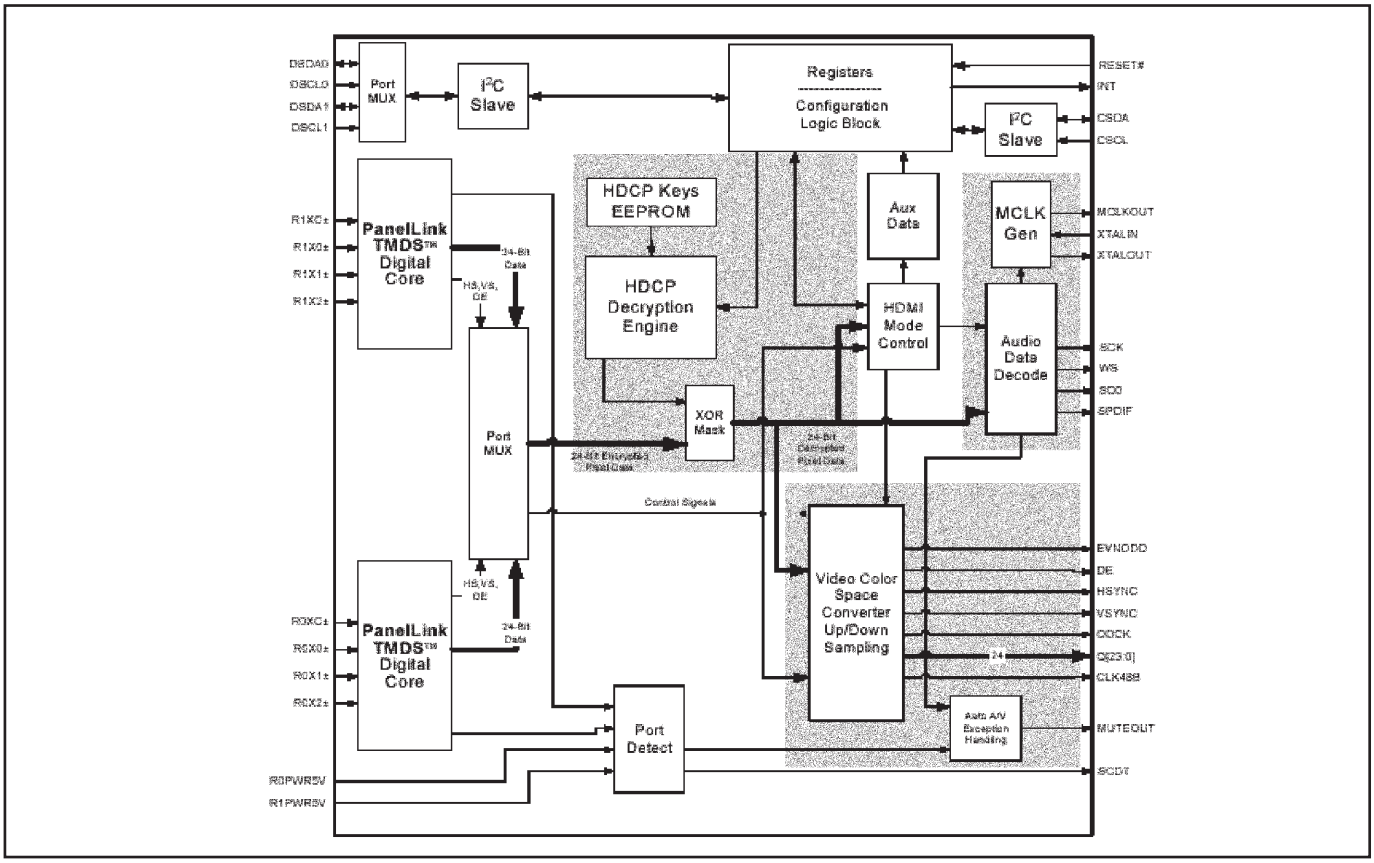
● L3E07110 <Digital Gamma, IC401>



● PW386 <Scan Converter & Main CPU, IC301>



● Sil9023 <HDMI Receiver, IC8001>



■ Electrical Parts List

Product safety should be considered when a component replacement is made in any area of a projector.
Components indicated by a ⚠ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

● Read Description in the parts list

Read description in the Capacitor and Resistor as follows:

CAPACITOR CERAMIC 100P K 50V

Rated Voltage

Tolerance Symbols:

Less than 10pF

A : Not specified	B : ±0.1pF	C : ±0.25pF
D : ±0.5pF	E : +0 -1pF	F : ±1PF
G : ±2pF	H : +0.1 -0pF	L : +0 -0.1pF
R : ±0.25 -0pF	S : +0-0.25pF	

More than 10pF

A : Not specified	B : ±0.1%	C : ±0.25%
D : ±0.5%	F : ±1%	G : ±2%
H : ±3%	J : ±5%	K : ±10%
L : ±15%	M : ±20%	N : ±30%
P : +100-0%	Q : +30-10%	T : +50-10%
U : +75-10%	V : +20-10%	W : +100-10%
X : +40-20%	Y : +150-10%	Z : +80-20%

Rated value: P=pico farad, U=micro farad

Material:

CERAMIC	Ceramic
MT-PAPER	Metallized Paper
POLYESTER	Polyester
MT-POLYEST	Metallized Polyester
POLYPRO	Polypropylene
MT-POLYPRO	Metallized Polypropylene
COMPO FILM	Composite film
MT-COMPO	Metallized Composite
STYRENE	Styrene
TA-SOLID	Tantalum Oxide Solid Electrolytic
AL-SOLID	Aluminium Solid Electrolytic
ELECT	Aluminum Foil Electrolytic
NP-ELECT	Non-polarised Electrolytic
OS-SOLID	Aluminium Solid with Organic Semiconductive Electrolytic
POS-SOLID	Polymerized Organic Semiconductive
DL-ELECT	Double Layered Electrolytic
PPS-FILM	Polyphenylene Sulfide Film
MT-PPS-FILM	Metalized Polyphenylene Sulfide Film
MT-PEN-FILM	Metalized Polyethylenenaphthalate Film
CAPACITOR	Other

RESISTOR CARBON 4.7K J A 1/4W

Rated Wattage

Performance Symbols:
A: General B: Non flammable Z: Low noise
Other: Temperature coefficient

T: ±10ppm/°C	U: ±25ppm/°C	C: ±50ppm/°C
D: ±100ppm/°C	E: ±200ppm/°C	F: ±250ppm/°C
G: ±350ppm/°C	H: ±1000ppm/°C±10%	W: ±1200ppm/°C±10%
Y: ±1400ppm/°C±10%	J: ±2000ppm/°C±10%	K: ±2400ppm/°C±10%
L: ±2700ppm/°C±10%	M: ±3000ppm/°C±10%	N: ±3300ppm/°C±10%
P: ±3600ppm/°C±10%	Q: ±3900ppm/°C±10%	R: ±4200ppm/°C±10%
S: ±4300ppm/°C±10%	V: ±4500ppm/°C±10%	X: ±8000ppm/°C±10%

Tolerance Symbols:
A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5%
F: ±1% G: ±2% J: ±5% K: ±10%
M: ±20% P: +5-15% Z: 0 ohm

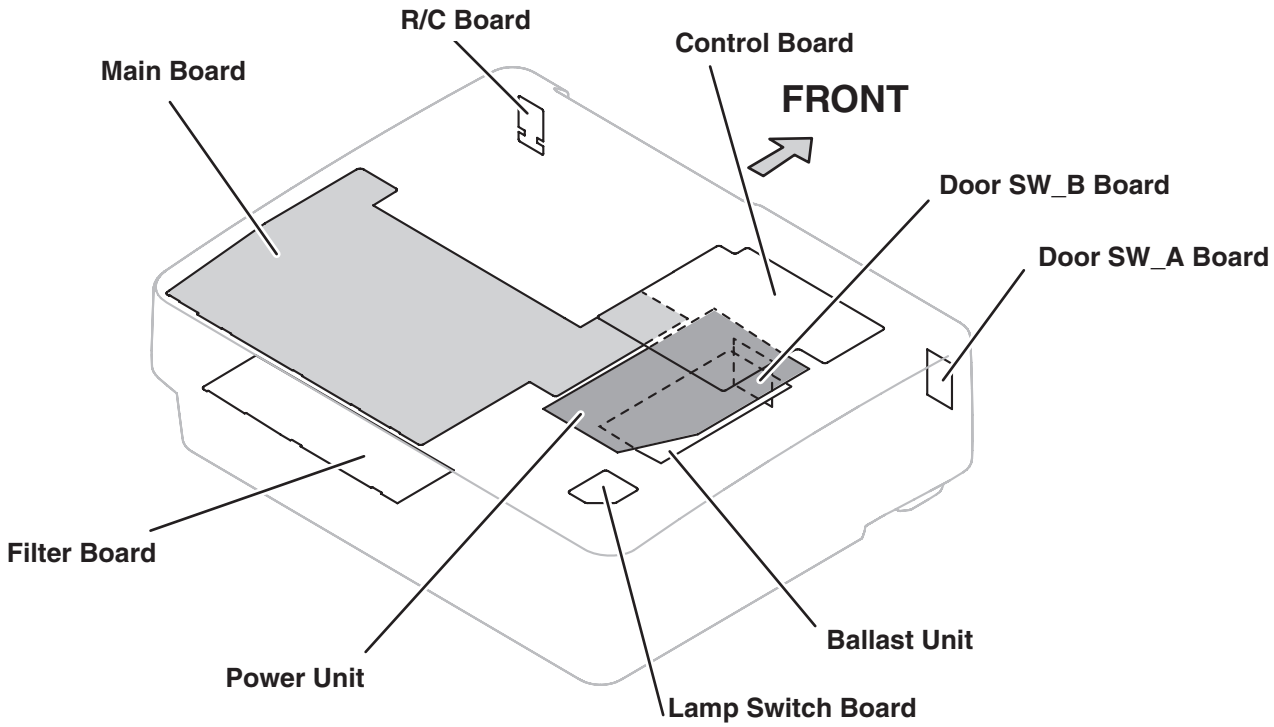
Rated value, ohms:
K: 1,000, M: 1,000,000

Material:

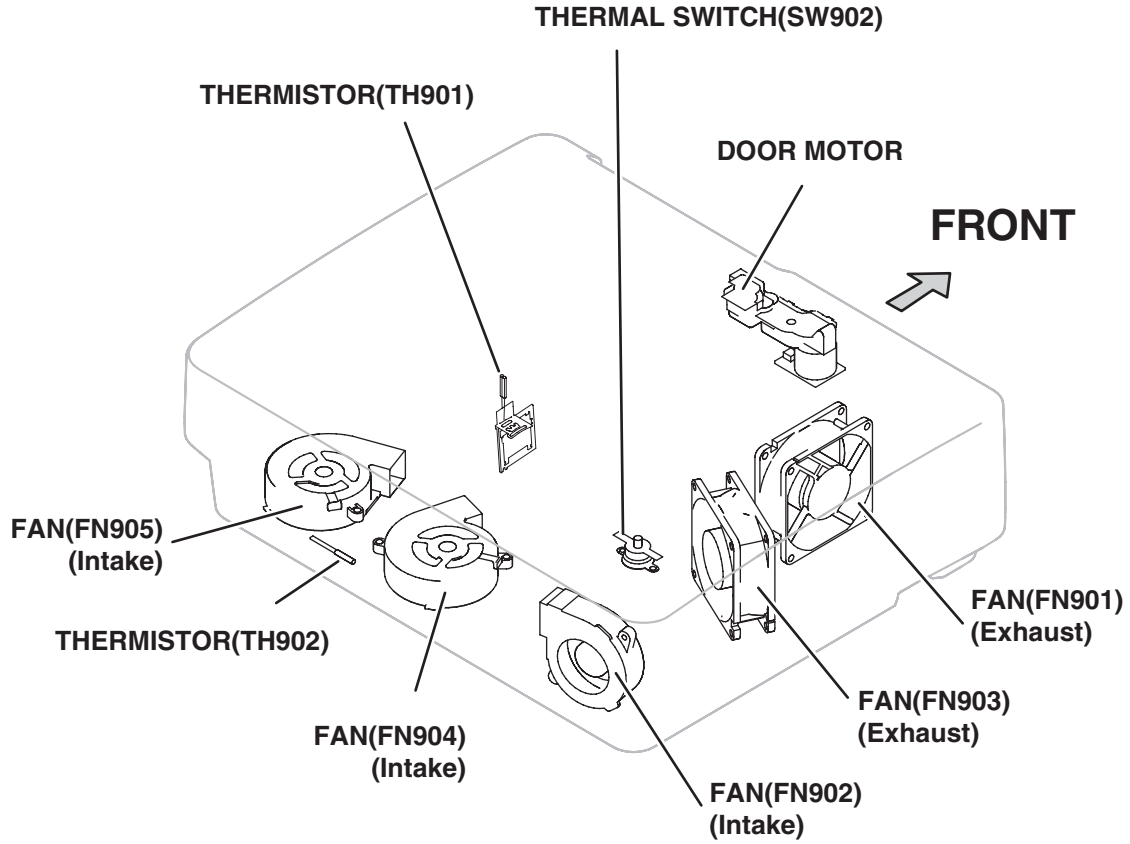
CARBON	Carbon
MT-FILM	Metal Film
OXIDE-MT	Oxide Metal Film
SOLID	Composition
MT-GLAZE	Metal Glaze
WIRE WOUND	Wire Wound
CERAMIC RES.	Ceramic
FUSIBLE RES.	Fusible
RESISTOR	Other

Note: Parts order must contain Chassis No., Part No., and Descriptions.

● ASSEMBLIED BOARDS



● OUT OF CIRCUIT BOARD



Key No.	Part No.	Description

ASSEMBLIED BOARDS

⚠ 910 322 5709 ASSY,PWB,CTRL M4WA
⚠ 910 322 7178 ASSY,PWB,R/C M4WA
⚠ 910 324 5295 ASSY,PWB,FILTER M4WA
⚠ 910 324 5028 ASSY,PWB,DOOR SW_A M4WA
⚠ 910 324 5288 ASSY,PWB,DOOR SW_B M4WA
⚠ 910 324 5004 ASSY,PWB,LAMP SW M4WA
⚠ 910 330 0819 ASSY,PWB,MAIN .MC4A

OUT OF CIRCUIT BOARDS

L901	945 003 3811	CORE,FERRITE
	945 040 2594	CORE,FERRITE
⚠LP901	610 323 5998	COMPL,OPT LMP-M4WA
⚠A901	945 078 0791	UNIT,BALLAST
⚠A902	945 078 7127	UNIT,POWER
⚠FN901	945 078 8391	MOTOR,FAN DC 2.28W
⚠FN902	945 078 8360	MOTOR,BLW DC 1.92W
⚠FN903	945 078 8384	MOTOR,FAN DC 2.4W
⚠FN904	945 078 8377	MOTOR,BLW DC 3.0W
⚠FN905	945 078 8377	MOTOR,BLW DC 3.0W
⚠SW902	945 078 9497	SWITCH,THERMAL(90DEG)
TH901	945 079 7768	SWITCH,THERMAL,THERMISTOR
TH902	945 079 7775	SWITCH,THERMAL,THERMISTOR
WK8A	910 325 5621	HALOGEN FREE WIRE 12P 2.0MM
WK8B	910 325 5645	HALOGEN FREE WIRE 3P 2.0MM
WK8C	910 325 5584	HALOGEN FREE WIRE 4P-5P
WK8D	910 325 5591	HALOGEN FREE WIRE 20P 1.0MM
WK8J	910 325 5577	HALOGEN FREE WIRE 4P 1.5MM
WK8L	910 325 5614	HALOGEN FREE WIRE 3P 1.5MM BL
WK8M	910 325 5638	HALOGEN FREE WIRE 3P 1.5MM RED
WK8N	910 325 5607	HALOGEN FREE WIRE 3P 1.5MM
WK8P	910 325 5560	HALOGEN FREE WIRE 5P 1.0MM
WK8Q	910 325 5577	HALOGEN FREE WIRE 4P 1.5MM

CONTROL BOARD

910 322 5709 ASSY,PWB,CTRL M4WA

TRANSISTOR		
Q2861	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2862	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2863	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2864	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
CAPACITOR		
C2851	303 164 0217	CERAMIC 0.1U Z 25V
C2852	303 164 0217	CERAMIC 0.1U Z 25V
C2853	303 164 0217	CERAMIC 0.1U Z 25V
C2854	303 164 0217	CERAMIC 0.1U Z 25V
RESISTOR		
R2850	301 150 6212	MT-GLAZE 1K JA 1/10W
R2851	301 162 3711	MT-GLAZE 4.7K JA 1/10W
R2853	301 162 3612	MT-GLAZE 470 JA 1/10W
R2854	301 162 3612	MT-GLAZE 470 JA 1/10W
R2855	301 150 6212	MT-GLAZE 1K JA 1/10W
R2856	301 162 3711	MT-GLAZE 4.7K JA 1/10W
R2858	301 150 6212	MT-GLAZE 1K JA 1/10W
R2859	301 162 3711	MT-GLAZE 4.7K JA 1/10W
R2860	301 150 6212	MT-GLAZE 1K JA 1/10W
R2862	301 256 6918	MT-GLAZE 680 JA 1/10W
R2863	301 256 7519	MT-GLAZE 390 JA 1/10W
R2864	301 162 3711	MT-GLAZE 4.7K JA 1/10W
R2865	301 150 6212	MT-GLAZE 1K JA 1/10W
R2867	301 150 6212	MT-GLAZE 1K JA 1/10W
R2868	301 150 6212	MT-GLAZE 1K JA 1/10W
R6801	301 256 5614	MT-GLAZE 47 JA 1/10W
R6802	301 256 5614	MT-GLAZE 47 JA 1/10W
R6803	301 256 5614	MT-GLAZE 47 JA 1/10W
R6804	301 150 6212	MT-GLAZE 1K JA 1/10W
R6806	301 256 5614	MT-GLAZE 47 JA 1/10W
R6807	301 256 5614	MT-GLAZE 47 JA 1/10W
R6808	301 256 5614	MT-GLAZE 47 JA 1/10W
R6809	301 256 5614	MT-GLAZE 47 JA 1/10W
DIODE		
D2851	307 208 9716	ZD UDZS-TE-175.6B
D2852	307 208 9716	ZD UDZS-TE-175.6B
D2853	307 208 9716	ZD UDZS-TE-175.6B
D2854	307 208 9716	ZD UDZS-TE-175.6B
D2856	307 209 7513	LED SML-210YT T86 L
D2857	307 203 7816	LED SML-210LT T86 M
D2858	307 222 4810	LED SML-521MUW T86
D2859	307 208 9716	ZD UDZS-TE-175.6B
D6801	307 149 0810	DIODE 1SS355-TE-17
D6802	307 149 0810	DIODE 1SS355-TE-17
D6803	307 149 0810	DIODE 1SS355-TE-17
D6804	307 208 9716	ZD UDZS-TE-175.6B
D6806	307 208 9716	ZD UDZS-TE-175.6B
D6807	307 208 9716	ZD UDZS-TE-175.6B
D6809	307 208 9716	ZD UDZS-TE-175.6B
D6811	307 208 9716	ZD UDZS-TE-175.6B
D6812	307 208 9716	ZD UDZS-TE-175.6B
D6813	307 208 9716	ZD UDZS-TE-175.6B
MISCELLANEOUS		
SC2851	945 076 3503	SURGE-ABSORBER
SW6801	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6802	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6803	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6804	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6806	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6807	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6808	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6809	945 026 2792	SWITCH,PUSH 1P-1TX1

Key No.	Part No.	Description
R/C BOARD		
910 322 7178	**ASSY,PWB,R/C M4WA**	
CAPACITOR		
C2801	303 157 6615	CERAMIC 470P K 50V
C2802	303 283 6312	CERAMIC 1U Z 10V
C2803	303 378 3110	CERAMIC 47U Z 6.3V
C2804	303 378 3110	CERAMIC 47U Z 6.3V
RESISTOR		
R2801	301 256 5614	MT-GLAZE 47 JA 1/10W
R2802	301 255 6513	MT-GLAZE 100 JA 1/10W
MISCELLANEOUS		
A2801	945 067 5547	UNIT,REMOCON RECEIVER
FILTER BOARD		
910 324 5295	**ASSY,PWB,FILTER M4WA**	
CAPACITOR		
⚠C611	304 094 3801	MT-POLYEST 0.22U K 275V
⚠C612	304 094 3801	MT-POLYEST 0.22U K 275V
⚠C613	304 094 3801	MT-POLYEST 0.22U K 275V
⚠C614	304 104 9502	CERAMIC 1500P K 250V
⚠C616	304 104 9502	CERAMIC 1500P K 250V
RESISTOR		
R611	301 008 8620	CARBON 220K JA 1/2W
VARIABLE RESISTOR		
⚠VA611	308 018 9801	VARISTOR ENC471D-14AS
⚠VA613	308 059 4308	VARISTOR ERZV10D201
COIL		
⚠L611	945 061 7523	LINE FILTER
⚠L612	945 061 7523	LINE FILTER
MISCELLANEOUS		
⚠F601	323 022 2105	FUSE 250V 4A
⚠K601	945 079 4286	SOCKET,INLET AC 3P
K601A	910 327 3854	MOUNTING AC-M4WA
⚠SW601	945 055 6662	SWITCH,POWER 2P-2TX2
DOOR SW_A BOARD		
910 324 5028	**ASSY,PWB,DOOR SW_A M4WA**	
SW8801	945 056 0751	SWITCH,MICRO 1P-2T
DOOR SW_B BOARD		
910 324 5288	**ASSY,PWB,DOOR SW_B M4WA**	
SW8811	945 056 0751	SWITCH,MICRO 1P-2T
LAMP SW BOARD		
910 324 5004	**ASSY,PWB,LAMP SW M4WA**	
SW8803	945 063 5176	SWITCH,PUSH 2P-2TX3
MAIN BOARD		
910 330 0819	**ASSY,PWB,MAIN .MC4A**	
TRANSISTOR		
Q1001	305 217 8614	TR RN1105 TE85L
Q1021	305 217 8614	TR RN1105 TE85L
Q1061	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q1062	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 002 0311	TR 2SA1037K T146 R
	305 002 0410	TR 2SA1037K T146 S
	305 002 6729	TR 2SA1179-M6-TB
	305 002 6927	TR 2SA1179-M7-TB
	305 163 1516	TR 2SA1179N-M6-TB
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
Q1071	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q1072	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q1073	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q1081	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q3612	305 217 7518	TR RN1102 TE85L
Q3613	305 217 7419	TR RN2102 TE85L
Q3614	305 217 5019	TR RN1117 TE85L
Q3631	305 217 6917	TR TPC6107 TE85L
Q3641	305 217 6917	TR TPC6107 TE85L
Q3651	305 217 6917	TR TPC6107 TE85L
Q3801	305 191 5814	TR 3LN01C-TB-E
Q4601	305 174 1819	TR CPH3424-TL
Q4603	305 174 1819	TR CPH3424-TL
Q4604	305 217 7815	TR HN1B04FE-Y TE85L
Q4605	305 217 7815	TR HN1B04FE-Y TE85L
Q5231	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5621	305 217 6917	TR TPC6107 TE85L
Q5641	305 217 6917	TR TPC6107 TE85L
Q5661	305 217 6917	TR TPC6107 TE85L
Q591	305 002 8327	TR 2SA1203-Y-TE12L
Q592	305 217 5019	TR RN1117 TE85L
Q6611	305 217 7419	TR RN2102 TE85L
Q6612	305 217 7518	TR RN1102 TE85L
Q6613	305 217 5019	TR RN1117 TE85L

Key No.	Part No.	Description
Q6626	305 217 7518	TR RN1102 TE85L
Q6631	305 217 6917	TR TPC6107 TE85L
Q6632	305 217 7815	TR HN1B04FE-Y TE85L
Q6641	305 217 6917	TR TPC6107 TE85L
Q6642	305 217 7815	TR HN1B04FE-Y TE85L
Q6651	305 217 6917	TR TPC6107 TE85L
Q6652	305 217 7815	TR HN1B04FE-Y TE85L
Q6661	305 217 6917	TR TPC6107 TE85L
Q6662	305 217 7815	TR HN1B04FE-Y TE85L
Q7781	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q8001	305 078 4124	TR 2N7002
Q8002	305 078 4124	TR 2N7002
Q8101	305 217 7518	TR RN1102 TE85L
Q8131	305 217 7518	TR RN1102 TE85L
Q8701	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q891	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
INTEGRATED CIRCUIT		
IC1301	309 480 1320	IC PST573IM
IC1302	309 350 2911	IC TC7W126FU-(TE12L)
IC1303	309 604 5514	IC TC7SZ02FU
IC1371	310 479 4004	IC TC7WBD125AFK
IC1391	310 538 4907	IC 24LC64T-I/SNG
IC1581	309 608 9112	IC BAJ2CC0WFP
IC1801	310 362 6504	IC TC74LCX541FT
IC1821	310 346 8807	IC TC74LCX574FT
IC2821	310 614 6207	IC TC7SZ14FU(TE85L,F)
IC2891	310 392 4709	IC SN74AHCT1G125DCK
IC301	309 646 9211	IC PW386-10L
IC3401	310 600 5108	IC MSM56V16160J-8T3-K
IC3431	309 588 6316	IC BA33BC0FP
IC3601	309 567 3213	IC FA7711V-TE1
IC3801	309 652 0714	IC HIN202EIBNZ-T
IC4401	310 562 5000	IC EP1S25F672C8N
IC4641	309 673 6313	IC TA4805AF
IC4811	309 400 9211	IC TC7SET32FU-(TE85L)
IC4812	309 400 9211	IC TC7SET32FU-(TE85L)
IC4831	309 431 6012	IC MC74VHC14DT
IC4832	309 422 5225	IC MC74ACT00DT
IC4833	309 431 6012	IC MC74VHC14DT
IC5201	309 605 3311	IC NJM2584AM
IC5231	309 400 7118	IC TC7W53FU-(TE12L)
IC5601	309 567 3213	IC FA7711V-TE1
IC5801	310 423 8003	IC TC74LCX138FT
IC5821	309 368 5812	IC TC7SH08FU(TE85L)
IC5831	309 301 5312	IC TC7S32FU-TE85L
IC5841	309 471 6713	IC TC7WH00FK(TE85L)
IC5851	309 488 5924	IC TC7WH04FK-TE85L
IC6551	309 362 1127	IC BA6287F
IC6601	309 567 3213	IC FA7711V-TE1
IC6621	309 531 6229	IC FA7701V-TE1
IC7701	309 246 9710	IC LA6358NM-TE-L
IC7741	309 649 4718	IC NJM4556AV-TE2
IC7761	309 368 5812	IC TC7SH08FU(TE85L)
IC7781	309 246 9710	IC LA6358NM-TE-L
IC7841	309 431 4424	IC M62334FP-DF5Q
IC8001	310 611 2707	IC SII9023CTU
IC801	410 630 6004	IC S29GL064A90TFIR30-754A
IC8071	309 673 6412	IC TA48033AF
IC8081	309 583 8117	IC SI-3018LSA-TL
IC8101	310 517 6809	IC TC74LVX4053FT
IC8111	309 558 7213	IC 24C02CT-I/SNG
IC8121	310 479 4004	IC TC7WBD125AFK
IC8131	310 517 6809	IC TC74LVX4053FT
IC8141	309 558 7213	IC 24C02CT-I/SNG
IC8151	310 479 4004	IC TC7WBD125AFK
IC8171	310 479 4004	IC TC7WBD125AFK
IC8251	309 539 8918	IC PQ033EZ01ZP
IC8261	309 583 8117	IC SI-3018LSA-TL
IC8281	309 539 8918	IC PQ033EZ01ZP
IC8291	309 583 8117	IC SI-3018LSA-TL
IC841	310 362 6504	IC TC74LCX541FT
IC8701	309 362 1127	IC BA6287F
IC8841	309 481 8615	IC LM76CHMX-5
IC8846	309 545 5710	IC XC6202P502M
CAPACITOR		
C1001	303 409 3426	CERAMIC 0.1U K 16V
C1021	303 409 3426	CERAMIC 0.1U K 16V
C1061	303 409 3426	CERAMIC 0.1U K 16V
C1062	303 372 7510	CERAMIC 2.2U K 6.3V
	303 370 0216	CERAMIC 2.2U K 6.3V
C1063	303 441 9810	CERAMIC 0.01U K 50V
C1064	303 409 3426	CERAMIC 0.1U K 16V
C1071	303 433 1112	CERAMIC 1U K 10V
C1072	303 433 1112	CERAMIC 1U K 10V
C1073	303 433 1112	CERAMIC 1U K 10V
C1074	303 433 1112	CERAMIC 1U K 10V
C1076	303 433 1112	CERAMIC 1U K 10V
C1077	303 433 1112	CERAMIC 1U K 10V
C1081	303 433 1112	CERAMIC 1U K 10V
C1082	303 433 1112	CERAMIC 1U K 10V
C1301	303 433 1112	CERAMIC 1U K 10V
C1302	303 394 1312	ELECT 100U M 6.3V
	303 387 4917	ELECT 100U M 6.3V
C1303	303 433 1112	CERAMIC 1U K 10V
C1304	303 409 3426	CERAMIC 0.1U K 16V
C1306	303 441 9810	CERAMIC 0.01U K 50V
C1307	303 433 1112	CERAMIC 1U K 10V
C1311	303 441 9810	CERAMIC 0.01U K 50V
C1331	303 276 2819	CERAMIC 18P J 50V
C1332	303 276 2819	CERAMIC 18P J 50V
C1371	303 409 3426	CERAMIC 0.1U K 16V
C1391	303 409 3426	CERAMIC 0.1U K 16V
C1581	303 135 0710	CERAMIC 1U K 25V
C1582	303 398 3817	ELECT 220U M 16V
C1583	303 409 3426	CERAMIC 0.1U K 16V
C1801	303 409 3426	CERAMIC 0.1U K 16V
C1821	303 409 3426	CERAMIC 0.1U K 16V
C2504	303 433 1112	CERAMIC 1U K 10V
C2505	303 398 5415	ELECT 47U M 25V
C2506	303 367 0410	CERAMIC 0.1U K 50V
C2507	303 367 0410	CERAMIC 0.1U K 50V
C2508	303 367 0410	CERAMIC 0.1U K 50V
C2509	303 433 1112	CERAMIC 1U K 10V
C2511	303 433 1112	CERAMIC 1U K 10V
C2512	303 358 3215	CERAMIC 10U K 6.3V
	303 368 7319	CERAMIC 10U K 6.3V

Key No.	Part No.	Description			Key No.	Part No.	Description		
C2513	303 367 0410	CERAMIC	0.1U K	50V	C3434	303 409 3426	CERAMIC	0.1U K	16V
C2534	303 433 1112	CERAMIC	1U K	10V	C3436	303 397 6314	ELECT	22U M	16V
C2535	303 398 5415	ELECT	47U M	25V	C3437	303 358 3215	CERAMIC	10U K	6.3V
C2536	303 367 0410	CERAMIC	0.1U K	50V		303 368 7319	CERAMIC	10U K	6.3V
C2537	303 367 0410	CERAMIC	0.1U K	50V	C3438	303 409 3426	CERAMIC	0.1U K	16V
C2538	303 367 0410	CERAMIC	0.1U K	50V	C3439	303 358 3215	CERAMIC	10U K	6.3V
C2539	303 433 1112	CERAMIC	1U K	10V		303 368 7319	CERAMIC	10U K	6.3V
C2541	303 433 1112	CERAMIC	1U K	10V	C3441	303 409 3426	CERAMIC	0.1U K	16V
C2542	303 358 3215	CERAMIC	10U K	6.3V	C3442	303 358 3215	CERAMIC	10U K	6.3V
	303 368 7319	CERAMIC	10U K	6.3V		303 368 7319	CERAMIC	10U K	6.3V
C2543	303 367 0410	CERAMIC	0.1U K	50V	C3443	303 409 3426	CERAMIC	0.1U K	16V
C2564	303 433 1112	CERAMIC	1U K	10V	C3444	303 394 1312	ELECT	100U M	6.3V
C2565	303 398 5415	ELECT	47U M	25V		303 387 4917	ELECT	100U M	6.3V
C2566	303 367 0410	CERAMIC	0.1U K	50V	C3446	303 358 3215	CERAMIC	10U K	6.3V
C2567	303 367 0410	CERAMIC	0.1U K	50V		303 368 7319	CERAMIC	10U K	6.3V
C2568	303 367 0410	CERAMIC	0.1U K	50V	C3447	303 409 3426	CERAMIC	0.1U K	16V
C2569	303 433 1112	CERAMIC	1U K	10V	C3501	303 409 3426	CERAMIC	0.1U K	16V
C2571	303 433 1112	CERAMIC	1U K	10V	C3502	303 367 0410	CERAMIC	0.1U K	50V
C2572	303 358 3215	CERAMIC	10U K	6.3V	C3503	303 367 0410	CERAMIC	0.1U K	50V
	303 368 7319	CERAMIC	10U K	6.3V	C3504	303 409 3426	CERAMIC	0.1U K	16V
C2573	303 367 0410	CERAMIC	0.1U K	50V	C3506	303 398 4111	ELECT	47U M	16V
C2821	303 409 3426	CERAMIC	0.1U K	16V	C3509	303 437 4614	CERAMIC	10U K	25V
C2891	303 433 1112	CERAMIC	1U K	10V	C3531	303 409 3426	CERAMIC	0.1U K	16V
C2893	303 409 3426	CERAMIC	0.1U K	16V	C3532	303 367 0410	CERAMIC	0.1U K	50V
C301	303 409 3426	CERAMIC	0.1U K	16V	C3533	303 367 0410	CERAMIC	0.1U K	50V
C302	303 392 1215	ELECT	47U M	6.3V	C3534	303 409 3426	CERAMIC	0.1U K	16V
C303	303 409 3426	CERAMIC	0.1U K	16V	C3536	303 398 4111	ELECT	47U M	16V
C304	303 409 3426	CERAMIC	0.1U K	16V	C3539	303 437 4614	CERAMIC	10U K	25V
C306	303 409 3426	CERAMIC	0.1U K	16V	C3561	303 409 3426	CERAMIC	0.1U K	16V
C307	303 409 3426	CERAMIC	0.1U K	16V	C3562	303 367 0410	CERAMIC	0.1U K	50V
C308	303 433 1112	CERAMIC	1U K	10V	C3563	303 367 0410	CERAMIC	0.1U K	50V
C309	303 433 1112	CERAMIC	1U K	10V	C3564	303 409 3426	CERAMIC	0.1U K	16V
C311	303 409 3426	CERAMIC	0.1U K	16V	C3566	303 398 4111	ELECT	47U M	16V
C312	303 409 3426	CERAMIC	0.1U K	16V	C3569	303 437 4614	CERAMIC	10U K	25V
C313	303 409 3426	CERAMIC	0.1U K	16V	C3601	303 433 1112	CERAMIC	1U K	10V
C314	303 409 3426	CERAMIC	0.1U K	16V	C3602	303 433 1112	CERAMIC	1U K	10V
C316	303 409 3426	CERAMIC	0.1U K	16V	C3605	303 379 7315	CERAMIC	4700P K	50V
C317	303 409 3426	CERAMIC	0.1U K	16V	C3608	303 379 7315	CERAMIC	4700P K	50V
C318	303 409 3426	CERAMIC	0.1U K	16V	C3609	303 379 7315	CERAMIC	4700P K	50V
C319	303 409 3426	CERAMIC	0.1U K	16V	C3611	303 409 3426	CERAMIC	0.1U K	16V
C321	303 409 3426	CERAMIC	0.1U K	16V	C3612	303 409 3426	CERAMIC	0.1U K	16V
C322	303 409 3426	CERAMIC	0.1U K	16V	C3613	303 409 3426	CERAMIC	0.1U K	16V
C323	303 433 1112	CERAMIC	1U K	10V	C3631	303 433 1112	CERAMIC	1U K	10V
C324	303 409 3426	CERAMIC	0.1U K	16V	C3632	303 347 5510	POS-SOLID	470U M	4V
C326	303 409 3426	CERAMIC	0.1U K	16V	C3634	303 409 3426	CERAMIC	0.1U K	16V
C327	303 409 3426	CERAMIC	0.1U K	16V	C3636	303 306 6510	CERAMIC	8200P K	50V
C328	303 409 3426	CERAMIC	0.1U K	16V	C3637	303 409 3426	CERAMIC	0.1U K	16V
C329	303 409 3426	CERAMIC	0.1U K	16V	C3638	303 409 3426	CERAMIC	0.1U K	16V
C331	303 409 3426	CERAMIC	0.1U K	16V	C3641	303 433 1112	CERAMIC	1U K	10V
C332	303 392 1215	ELECT	47U M	6.3V	C3642	303 347 5510	POS-SOLID	470U M	4V
C333	303 392 1215	ELECT	47U M	6.3V	C3644	303 409 3426	CERAMIC	0.1U K	16V
C334	303 409 3426	CERAMIC	0.1U K	16V	C3646	303 306 6510	CERAMIC	8200P K	50V
C335	303 433 1112	CERAMIC	1U K	10V	C3651	303 433 1112	CERAMIC	1U K	10V
C336	303 433 1112	CERAMIC	1U K	10V	C3652	303 347 5510	POS-SOLID	470U M	4V
C337	303 409 3426	CERAMIC	0.1U K	16V	C3654	303 409 3426	CERAMIC	0.1U K	16V
C338	303 433 1112	CERAMIC	1U K	10V	C3656	303 306 6510	CERAMIC	8200P K	50V
C3401	303 409 3426	CERAMIC	0.1U K	16V	C3658	303 409 3426	CERAMIC	0.1U K	16V
C3402	303 409 3426	CERAMIC	0.1U K	16V	C3801	303 372 7510	CERAMIC	2.2U K	6.3V
C3403	303 409 3426	CERAMIC	0.1U K	16V		303 370 0216	CERAMIC	2.2U K	6.3V
C3404	303 409 3426	CERAMIC	0.1U K	16V	C3802	303 372 7510	CERAMIC	2.2U K	6.3V
C3406	303 409 3426	CERAMIC	0.1U K	16V		303 370 0216	CERAMIC	2.2U K	6.3V
C341	303 433 1112	CERAMIC	1U K	10V	C3803	303 372 7510	CERAMIC	2.2U K	6.3V
C342	303 433 1112	CERAMIC	1U K	10V		303 370 0216	CERAMIC	2.2U K	6.3V
C343	303 433 1112	CERAMIC	1U K	10V	C3804	303 372 7510	CERAMIC	2.2U K	6.3V
C3432	303 409 3426	CERAMIC	0.1U K	16V		303 370 0216	CERAMIC	2.2U K	6.3V
C3433	303 394 1312	ELECT	100U M	6.3V	C3806	303 433 1112	CERAMIC	1U K	10V
	303 387 4917	ELECT	100U M	6.3V	C4003	303 279 6210	CERAMIC	10P J	50V

Key No.	Part No.	Description	Key No.	Part No.	Description
C401	303 409 3426	CERAMIC 0.1U K 16V	C4463	303 409 3426	CERAMIC 0.1U K 16V
C402	303 409 3426	CERAMIC 0.1U K 16V	C4464	303 409 3426	CERAMIC 0.1U K 16V
C403	303 409 3426	CERAMIC 0.1U K 16V	C4466	303 409 3426	CERAMIC 0.1U K 16V
C404	303 409 3426	CERAMIC 0.1U K 16V	C4467	303 409 3426	CERAMIC 0.1U K 16V
C406	303 409 3426	CERAMIC 0.1U K 16V	C4468	303 409 3426	CERAMIC 0.1U K 16V
C407	303 409 3426	CERAMIC 0.1U K 16V	C4469	303 409 3426	CERAMIC 0.1U K 16V
C408	303 433 1112	CERAMIC 1U K 10V	C4601	303 409 3426	CERAMIC 0.1U K 16V
C411	303 409 3426	CERAMIC 0.1U K 16V	C4602	303 394 9318	ELECT 220U M 6.3V
C412	303 409 3426	CERAMIC 0.1U K 16V	C4603	303 367 0410	CERAMIC 0.1U K 50V
C413	303 409 3426	CERAMIC 0.1U K 16V	C4604	303 398 5019	ELECT 33U M 25V
C414	303 409 3426	CERAMIC 0.1U K 16V	C4606	303 444 3310	CERAMIC 0.022U K 50V
C416	303 409 3426	CERAMIC 0.1U K 16V	C4607	303 391 5115	ELECT 100U M 16V
C417	303 409 3426	CERAMIC 0.1U K 16V	C4609	303 409 3426	CERAMIC 0.1U K 16V
C418	303 433 1112	CERAMIC 1U K 10V	C4611	303 409 3426	CERAMIC 0.1U K 16V
C421	303 409 3426	CERAMIC 0.1U K 16V	C4612	303 444 3310	CERAMIC 0.022U K 50V
C422	303 409 3426	CERAMIC 0.1U K 16V	C4613	303 394 1312	ELECT 100U M 6.3V
C423	303 409 3426	CERAMIC 0.1U K 16V		303 387 4917	ELECT 100U M 6.3V
C424	303 409 3426	CERAMIC 0.1U K 16V	C4621	303 394 1312	ELECT 100U M 6.3V
C426	303 409 3426	CERAMIC 0.1U K 16V		303 387 4917	ELECT 100U M 6.3V
C427	303 409 3426	CERAMIC 0.1U K 16V	C4631	303 391 5115	ELECT 100U M 16V
C428	303 433 1112	CERAMIC 1U K 10V	C4641	303 409 3426	CERAMIC 0.1U K 16V
C431	303 409 3426	CERAMIC 0.1U K 16V	C4642	303 394 9318	ELECT 220U M 6.3V
C432	303 409 3426	CERAMIC 0.1U K 16V	C4643	303 409 3426	CERAMIC 0.1U K 16V
C433	303 409 3426	CERAMIC 0.1U K 16V	C478	303 392 1215	ELECT 47U M 6.3V
C434	303 409 3426	CERAMIC 0.1U K 16V	C479	303 392 1215	ELECT 47U M 6.3V
C436	303 409 3426	CERAMIC 0.1U K 16V	C4800	303 409 3426	CERAMIC 0.1U K 16V
C437	303 409 3426	CERAMIC 0.1U K 16V	C4801	303 409 3426	CERAMIC 0.1U K 16V
C438	303 433 1112	CERAMIC 1U K 10V	C4802	303 409 3426	CERAMIC 0.1U K 16V
C439	303 398 2018	ELECT 33U M 6.3V	C4811	303 409 3426	CERAMIC 0.1U K 16V
C4401	303 409 3426	CERAMIC 0.1U K 16V	C4812	303 441 9810	CERAMIC 0.01U K 50V
C441	303 409 3426	CERAMIC 0.1U K 16V	C4814	303 433 1112	CERAMIC 1U K 10V
C4411	303 409 3426	CERAMIC 0.1U K 16V	C4816	303 433 1112	CERAMIC 1U K 10V
C4412	303 409 3426	CERAMIC 0.1U K 16V	C4831	303 409 3426	CERAMIC 0.1U K 16V
C4413	303 409 3426	CERAMIC 0.1U K 16V	C4832	303 409 3426	CERAMIC 0.1U K 16V
C4414	303 409 3426	CERAMIC 0.1U K 16V	C4833	303 409 3426	CERAMIC 0.1U K 16V
C4416	303 409 3426	CERAMIC 0.1U K 16V	C4851	303 441 9810	CERAMIC 0.01U K 50V
C4417	303 409 3426	CERAMIC 0.1U K 16V	C501	303 433 1112	CERAMIC 1U K 10V
C4418	303 409 3426	CERAMIC 0.1U K 16V	C502	303 396 9613	CERAMIC 1U K 25V
C4419	303 409 3426	CERAMIC 0.1U K 16V	C503	303 396 9613	CERAMIC 1U K 25V
C4421	303 409 3426	CERAMIC 0.1U K 16V	C504	303 396 9613	CERAMIC 1U K 25V
C4422	303 409 3426	CERAMIC 0.1U K 16V	C505	303 396 9613	CERAMIC 1U K 25V
C4423	303 409 3426	CERAMIC 0.1U K 16V	C506	303 396 9613	CERAMIC 1U K 25V
C4424	303 409 3426	CERAMIC 0.1U K 16V	C507	303 396 9613	CERAMIC 1U K 25V
C4426	303 409 3426	CERAMIC 0.1U K 16V	C508	303 396 9613	CERAMIC 1U K 25V
C4427	303 409 3426	CERAMIC 0.1U K 16V	C509	303 396 9613	CERAMIC 1U K 25V
C4428	303 409 3426	CERAMIC 0.1U K 16V	C511	303 396 9613	CERAMIC 1U K 25V
C4429	303 409 3426	CERAMIC 0.1U K 16V	C512	303 276 1317	CERAMIC 1000P K 50V
C4431	303 409 3426	CERAMIC 0.1U K 16V	C513	303 396 9613	CERAMIC 1U K 25V
C4432	303 409 3426	CERAMIC 0.1U K 16V	C514	303 396 9613	CERAMIC 1U K 25V
C4436	303 409 3426	CERAMIC 0.1U K 16V	C515	303 433 1112	CERAMIC 1U K 10V
C4437	303 409 3426	CERAMIC 0.1U K 16V	C516	303 433 1112	CERAMIC 1U K 10V
C4438	303 409 3426	CERAMIC 0.1U K 16V	C517	303 433 1112	CERAMIC 1U K 10V
C4441	303 409 3426	CERAMIC 0.1U K 16V	C518	303 433 1112	CERAMIC 1U K 10V
C4442	303 409 3426	CERAMIC 0.1U K 16V	C519	303 433 1112	CERAMIC 1U K 10V
C4446	303 409 3426	CERAMIC 0.1U K 16V	C5201	303 376 6311	CERAMIC 0.47U K 10V
C4447	303 409 3426	CERAMIC 0.1U K 16V	C5202	303 376 6311	CERAMIC 0.47U K 10V
C4448	303 409 3426	CERAMIC 0.1U K 16V	C5203	303 433 1112	CERAMIC 1U K 10V
C4451	303 409 3426	CERAMIC 0.1U K 16V	C5204	303 433 1112	CERAMIC 1U K 10V
C4452	303 409 3426	CERAMIC 0.1U K 16V	C5206	303 433 1112	CERAMIC 1U K 10V
C4453	303 409 3426	CERAMIC 0.1U K 16V	C5207	303 433 1112	CERAMIC 1U K 10V
C4454	303 409 3426	CERAMIC 0.1U K 16V	C5208	303 409 3426	CERAMIC 0.1U K 16V
C4456	303 409 3426	CERAMIC 0.1U K 16V	C5209	303 409 3426	CERAMIC 0.1U K 16V
C4457	303 409 3426	CERAMIC 0.1U K 16V	C5221	303 409 3426	CERAMIC 0.1U K 16V
C4458	303 409 3426	CERAMIC 0.1U K 16V	C5222	303 409 3426	CERAMIC 0.1U K 16V
C4459	303 409 3426	CERAMIC 0.1U K 16V	C5223	303 409 3426	CERAMIC 0.1U K 16V
C4461	303 409 3426	CERAMIC 0.1U K 16V	C5224	303 376 6311	CERAMIC 0.47U K 10V
C4462	303 409 3426	CERAMIC 0.1U K 16V	C5231	303 409 3426	CERAMIC 0.1U K 16V

Key No.	Part No.	Description		Key No.	Part No.	Description	
C5232	303 409 3426	CERAMIC	0.1U K 16V	C577	303 433 1112	CERAMIC	1U K 10V
C5233	303 409 3426	CERAMIC	0.1U K 16V	C578	303 433 1112	CERAMIC	1U K 10V
C5234	303 409 3426	CERAMIC	0.1U K 16V	C579	303 433 1112	CERAMIC	1U K 10V
C5241	303 449 3018	CERAMIC	0.68U K 10V	C5801	303 409 3426	CERAMIC	0.1U K 16V
C5242	303 409 3426	CERAMIC	0.1U K 16V	C5821	303 409 3426	CERAMIC	0.1U K 16V
C5243	303 449 3018	CERAMIC	0.68U K 10V	C5831	303 409 3426	CERAMIC	0.1U K 16V
C527	303 358 3215	CERAMIC	10U K 6.3V	C5841	303 409 3426	CERAMIC	0.1U K 16V
	303 368 7319	CERAMIC	10U K 6.3V	C5851	303 409 3426	CERAMIC	0.1U K 16V
C529	303 376 3112	ELECT	100U M 25V	C587	303 358 3215	CERAMIC	10U K 6.3V
C531	303 433 1112	CERAMIC	1U K 10V		303 368 7319	CERAMIC	10U K 6.3V
C532	303 396 9613	CERAMIC	1U K 25V	C589	303 376 3112	ELECT	100U M 25V
C533	303 396 9613	CERAMIC	1U K 25V	C591	303 367 0410	CERAMIC	0.1U K 50V
C534	303 396 9613	CERAMIC	1U K 25V	C592	303 397 7113	ELECT	220U M 50V
C535	303 396 9613	CERAMIC	1U K 25V	C593	303 367 0410	CERAMIC	0.1U K 50V
C536	303 396 9613	CERAMIC	1U K 25V	C6201	303 376 6311	CERAMIC	0.47U K 10V
C537	303 396 9613	CERAMIC	1U K 25V	C6202	303 409 3426	CERAMIC	0.1U K 16V
C538	303 396 9613	CERAMIC	1U K 25V	C6203	303 409 3426	CERAMIC	0.1U K 16V
C539	303 396 9613	CERAMIC	1U K 25V	C6204	303 409 3426	CERAMIC	0.1U K 16V
C541	303 396 9613	CERAMIC	1U K 25V	C6206	303 409 3426	CERAMIC	0.1U K 16V
C542	303 276 1317	CERAMIC	1000P K 50V	C6207	303 409 3426	CERAMIC	0.1U K 16V
C543	303 396 9613	CERAMIC	1U K 25V	C6208	303 409 3426	CERAMIC	0.1U K 16V
C544	303 396 9613	CERAMIC	1U K 25V	C6551	303 409 3426	CERAMIC	0.1U K 16V
C545	303 433 1112	CERAMIC	1U K 10V	C6552	303 409 3426	CERAMIC	0.1U K 16V
C546	303 433 1112	CERAMIC	1U K 10V	C6553	303 409 3426	CERAMIC	0.1U K 16V
C547	303 433 1112	CERAMIC	1U K 10V	C6554	303 409 3426	CERAMIC	0.1U K 16V
C548	303 433 1112	CERAMIC	1U K 10V	C6601	303 367 0410	CERAMIC	0.1U K 50V
C549	303 433 1112	CERAMIC	1U K 10V	C6602	303 433 1112	CERAMIC	1U K 10V
C557	303 358 3215	CERAMIC	10U K 6.3V	C6605	303 379 7315	CERAMIC	4700P K 50V
	303 368 7319	CERAMIC	10U K 6.3V	C6608	303 379 7315	CERAMIC	4700P K 50V
C559	303 376 3112	ELECT	100U M 25V	C6609	303 379 7315	CERAMIC	4700P K 50V
C5601	303 433 1112	CERAMIC	1U K 10V	C6611	303 409 3426	CERAMIC	0.1U K 16V
C5602	303 409 3426	CERAMIC	0.1U K 16V	C6612	303 409 3426	CERAMIC	0.1U K 16V
C5603	303 433 1112	CERAMIC	1U K 10V	C6621	303 367 0410	CERAMIC	0.1U K 50V
C5604	303 379 7315	CERAMIC	4700P K 50V	C6622	303 409 3426	CERAMIC	0.1U K 16V
C5606	303 376 6212	CERAMIC	0.22U K 10V	C6623	303 379 7315	CERAMIC	4700P K 50V
C5607	303 419 0115	CERAMIC	0.15U K 10V	C6626	303 367 0410	CERAMIC	0.1U K 50V
C5608	303 409 3426	CERAMIC	0.1U K 16V	C6627	303 367 0410	CERAMIC	0.1U K 50V
C5609	303 379 7315	CERAMIC	4700P K 50V	C6631	303 367 0410	CERAMIC	0.1U K 50V
C561	303 433 1112	CERAMIC	1U K 10V	C6632	303 391 5115	ELECT	100U M 16V
C5611	303 379 7315	CERAMIC	4700P K 50V	C6633	303 409 3426	CERAMIC	0.1U K 16V
C562	303 396 9613	CERAMIC	1U K 25V	C6641	303 367 0410	CERAMIC	0.1U K 50V
C5621	303 433 1112	CERAMIC	1U K 10V	C6642	303 391 5115	ELECT	100U M 16V
C5622	303 347 5510	POS-SOLID	470U M 4V	C6643	303 409 3426	CERAMIC	0.1U K 16V
C5623	303 433 1112	CERAMIC	1U K 10V	C6651	303 367 0410	CERAMIC	0.1U K 50V
C5624	303 409 3426	CERAMIC	0.1U K 16V	C6652	303 391 5115	ELECT	100U M 16V
C5626	303 306 6510	CERAMIC	8200P K 50V	C6653	303 409 3426	CERAMIC	0.1U K 16V
C563	303 396 9613	CERAMIC	1U K 25V	C6661	303 367 0410	CERAMIC	0.1U K 50V
C564	303 396 9613	CERAMIC	1U K 25V	C6662	303 391 5115	ELECT	100U M 16V
C5641	303 433 1112	CERAMIC	1U K 10V	C6663	303 409 3426	CERAMIC	0.1U K 16V
C5642	303 347 5510	POS-SOLID	470U M 4V	C7701	303 409 3426	CERAMIC	0.1U K 16V
C5644	303 409 3426	CERAMIC	0.1U K 16V	C7741	303 409 3426	CERAMIC	0.1U K 16V
C5646	303 306 6510	CERAMIC	8200P K 50V	C7742	303 441 9810	CERAMIC	0.01U K 50V
C565	303 396 9613	CERAMIC	1U K 25V	C7743	303 441 9810	CERAMIC	0.01U K 50V
C566	303 396 9613	CERAMIC	1U K 25V	C7761	303 409 3426	CERAMIC	0.1U K 16V
C5661	303 433 1112	CERAMIC	1U K 10V	C7762	303 397 9216	CERAMIC	0.68U K 10V
C5662	303 347 5510	POS-SOLID	470U M 4V		303 375 5117	CERAMIC	0.68U K 10V
C5664	303 409 3426	CERAMIC	0.1U K 16V	C7763	303 409 3426	CERAMIC	0.1U K 16V
C5666	303 306 6510	CERAMIC	8200P K 50V	C7781	303 409 3426	CERAMIC	0.1U K 16V
C567	303 396 9613	CERAMIC	1U K 25V	C7801	303 409 3426	CERAMIC	0.1U K 16V
C568	303 396 9613	CERAMIC	1U K 25V	C7802	303 409 3426	CERAMIC	0.1U K 16V
C569	303 396 9613	CERAMIC	1U K 25V	C7803	303 409 3426	CERAMIC	0.1U K 16V
C571	303 396 9613	CERAMIC	1U K 25V	C7804	303 409 3426	CERAMIC	0.1U K 16V
C572	303 276 1317	CERAMIC	1000P K 50V	C7806	303 409 3426	CERAMIC	0.1U K 16V
C573	303 396 9613	CERAMIC	1U K 25V	C7831	303 409 3426	CERAMIC	0.1U K 16V
C574	303 396 9613	CERAMIC	1U K 25V	C7841	303 409 3426	CERAMIC	0.1U K 16V
C575	303 433 1112	CERAMIC	1U K 10V	C8001	303 409 3426	CERAMIC	0.1U K 16V
C576	303 433 1112	CERAMIC	1U K 10V	C8002	303 391 5511	ELECT	10U M 16V

Key No.	Part No.	Description	Key No.	Part No.	Description
C8003	303 409 3426	CERAMIC 0.1U K 16V	C8134	303 383 5215	CERAMIC 4.7U K 6.3V
C8004	303 276 1317	CERAMIC 1000P K 50V		303 393 2112	CERAMIC 4.7U K 6.3V
C8006	303 409 3426	CERAMIC 0.1U K 16V	C8141	303 409 3426	CERAMIC 0.1U K 16V
C8007	303 409 3426	CERAMIC 0.1U K 16V	C8151	303 409 3426	CERAMIC 0.1U K 16V
C8008	303 409 3426	CERAMIC 0.1U K 16V	C8171	303 409 3426	CERAMIC 0.1U K 16V
C8009	303 409 3426	CERAMIC 0.1U K 16V	C8201	303 441 9810	CERAMIC 0.01U K 50V
C801	303 409 3426	CERAMIC 0.1U K 16V	C8202	303 442 0113	CERAMIC 0.082U K 16V
C8011	303 409 3426	CERAMIC 0.1U K 16V	C8203	303 409 3426	CERAMIC 0.1U K 16V
C8012	303 276 1317	CERAMIC 1000P K 50V	C8204	303 441 9810	CERAMIC 0.01U K 50V
C8013	303 409 3426	CERAMIC 0.1U K 16V	C8209	303 409 3426	CERAMIC 0.1U K 16V
C8014	303 409 3426	CERAMIC 0.1U K 16V	C8211	303 409 3426	CERAMIC 0.1U K 16V
C8016	303 409 3426	CERAMIC 0.1U K 16V	C8212	303 409 3426	CERAMIC 0.1U K 16V
C8017	303 409 3426	CERAMIC 0.1U K 16V	C8213	303 441 9810	CERAMIC 0.01U K 50V
C8018	303 409 3426	CERAMIC 0.1U K 16V	C8214	303 358 3215	CERAMIC 10U K 6.3V
C8019	303 358 3215	CERAMIC 10U K 6.3V		303 368 7319	CERAMIC 10U K 6.3V
	303 368 7319	CERAMIC 10U K 6.3V	C8216	303 409 3426	CERAMIC 0.1U K 16V
C8021	303 409 3426	CERAMIC 0.1U K 16V	C8217	303 358 3215	CERAMIC 10U K 6.3V
C8022	303 276 1317	CERAMIC 1000P K 50V		303 368 7319	CERAMIC 10U K 6.3V
C8023	303 276 1317	CERAMIC 1000P K 50V	C8218	303 409 3426	CERAMIC 0.1U K 16V
C8024	303 409 3426	CERAMIC 0.1U K 16V	C8219	303 358 3215	CERAMIC 10U K 6.3V
C8026	303 276 1317	CERAMIC 1000P K 50V		303 368 7319	CERAMIC 10U K 6.3V
C8027	303 276 1317	CERAMIC 1000P K 50V	C8221	303 409 3426	CERAMIC 0.1U K 16V
C8028	303 276 1317	CERAMIC 1000P K 50V	C8222	303 441 9810	CERAMIC 0.01U K 50V
C8029	303 276 1317	CERAMIC 1000P K 50V	C8223	303 358 3215	CERAMIC 10U K 6.3V
C8032	303 276 1317	CERAMIC 1000P K 50V		303 368 7319	CERAMIC 10U K 6.3V
C8033	303 358 3215	CERAMIC 10U K 6.3V	C8224	303 409 3426	CERAMIC 0.1U K 16V
	303 368 7319	CERAMIC 10U K 6.3V	C8226	303 441 9810	CERAMIC 0.01U K 50V
C8034	303 358 3215	CERAMIC 10U K 6.3V	C8232	303 409 3426	CERAMIC 0.1U K 16V
	303 368 7319	CERAMIC 10U K 6.3V	C8233	303 441 9810	CERAMIC 0.01U K 50V
C8036	303 409 3426	CERAMIC 0.1U K 16V	C8234	303 409 3426	CERAMIC 0.1U K 16V
C8037	303 276 1317	CERAMIC 1000P K 50V	C8236	303 441 9810	CERAMIC 0.01U K 50V
C8038	303 276 1317	CERAMIC 1000P K 50V	C8237	303 409 3426	CERAMIC 0.1U K 16V
C8039	303 409 3426	CERAMIC 0.1U K 16V	C8238	303 441 9810	CERAMIC 0.01U K 50V
C8041	303 276 1317	CERAMIC 1000P K 50V	C8239	303 441 9810	CERAMIC 0.01U K 50V
C8042	303 276 1317	CERAMIC 1000P K 50V	C8241	303 409 3426	CERAMIC 0.1U K 16V
C8043	303 276 1317	CERAMIC 1000P K 50V	C8242	303 311 7816	CERAMIC 8P D 50V
C8044	303 276 1317	CERAMIC 1000P K 50V	C8243	303 311 7816	CERAMIC 8P D 50V
C8046	303 358 3215	CERAMIC 10U K 6.3V	C8244	303 441 9810	CERAMIC 0.01U K 50V
	303 368 7319	CERAMIC 10U K 6.3V	C8246	303 409 3426	CERAMIC 0.1U K 16V
C8047	303 409 3426	CERAMIC 0.1U K 16V	C8251	303 409 3426	CERAMIC 0.1U K 16V
C8048	303 276 1317	CERAMIC 1000P K 50V	C8253	303 394 1312	ELECT 100U M 6.3V
C8049	303 409 3426	CERAMIC 0.1U K 16V		303 387 4917	ELECT 100U M 6.3V
C8051	303 409 3426	CERAMIC 0.1U K 16V	C8254	303 409 3426	CERAMIC 0.1U K 16V
C8052	303 276 1317	CERAMIC 1000P K 50V	C8261	303 409 3426	CERAMIC 0.1U K 16V
C8053	303 276 1317	CERAMIC 1000P K 50V	C8262	303 409 3426	CERAMIC 0.1U K 16V
C8054	303 276 1317	CERAMIC 1000P K 50V	C8263	303 379 0217	POS-SOLID 68U M 6.3V
C8056	303 276 1317	CERAMIC 1000P K 50V	C8264	303 409 3426	CERAMIC 0.1U K 16V
C8057	303 409 3426	CERAMIC 0.1U K 16V	C8271	303 433 1112	CERAMIC 1U K 10V
C8058	303 276 1317	CERAMIC 1000P K 50V	C8281	303 409 3426	CERAMIC 0.1U K 16V
C8061	303 276 2819	CERAMIC 18P J 50V	C8283	303 394 1312	ELECT 100U M 6.3V
C8062	303 276 2819	CERAMIC 18P J 50V		303 387 4917	ELECT 100U M 6.3V
C8063	303 441 9810	CERAMIC 0.01U K 50V	C8284	303 409 3426	CERAMIC 0.1U K 16V
C8064	303 409 3426	CERAMIC 0.1U K 16V	C8291	303 409 3426	CERAMIC 0.1U K 16V
C8071	303 409 3426	CERAMIC 0.1U K 16V	C8292	303 409 3426	CERAMIC 0.1U K 16V
C8072	303 394 1312	ELECT 100U M 6.3V	C8293	303 379 0217	POS-SOLID 68U M 6.3V
	303 387 4917	ELECT 100U M 6.3V	C8294	303 409 3426	CERAMIC 0.1U K 16V
C8073	303 409 3426	CERAMIC 0.1U K 16V	C841	303 409 3426	CERAMIC 0.1U K 16V
C8081	303 409 3426	CERAMIC 0.1U K 16V	C8701	303 409 3426	CERAMIC 0.1U K 16V
C8082	303 409 3426	CERAMIC 0.1U K 16V	C8702	303 409 3426	CERAMIC 0.1U K 16V
C8083	303 379 0217	POS-SOLID 68U M 6.3V	C8703	303 409 3426	CERAMIC 0.1U K 16V
C8084	303 409 3426	CERAMIC 0.1U K 16V	C8704	303 409 3426	CERAMIC 0.1U K 16V
C8101	303 409 3426	CERAMIC 0.1U K 16V	C8706	303 409 3426	CERAMIC 0.1U K 16V
C8104	303 383 5215	CERAMIC 4.7U K 6.3V	C871	303 433 1112	CERAMIC 1U K 10V
	303 393 2112	CERAMIC 4.7U K 6.3V	C872	303 433 1112	CERAMIC 1U K 10V
C8111	303 409 3426	CERAMIC 0.1U K 16V	C873	303 433 1112	CERAMIC 1U K 10V
C8121	303 409 3426	CERAMIC 0.1U K 16V	C881	303 433 1112	CERAMIC 1U K 10V
C8131	303 409 3426	CERAMIC 0.1U K 16V	C882	303 433 1112	CERAMIC 1U K 10V

Key No.	Part No.	Description
C8821	303 276 1317	CERAMIC 1000P K 50V
C8831	303 276 1317	CERAMIC 1000P K 50V
C8841	303 276 3113	CERAMIC 33P J 50V
C8842	303 276 3113	CERAMIC 33P J 50V
C8843	303 409 3426	CERAMIC 0.1U K 16V
C8846	303 409 3426	CERAMIC 0.1U K 16V
C8847	303 392 1215	ELECT 47U M 6.3V
C8849	303 409 3426	CERAMIC 0.1U K 16V
C8851	303 398 2117	ELECT 330U M 6.3V
C891	303 441 9810	CERAMIC 0.01U K 50V
RESISTOR		
R1001	301 225 8110	MT-GLAZE 10 JA 1/16W
R1002	301 224 9316	MT-GLAZE 1K JA 1/16W
R1006	301 238 4512	MT-GLAZE 47 JA 1/3W
R1011	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1012	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1013	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1014	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1016	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1017	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1018	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1019	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1021	301 225 8110	MT-GLAZE 10 JA 1/16W
R1022	301 224 9316	MT-GLAZE 1K JA 1/16W
R1026	301 238 4512	MT-GLAZE 47 JA 1/3W
R1031	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1032	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1033	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1034	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1036	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1037	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1038	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1039	301 237 2519	MT-GLAZE 4.7 JA 1/16W
R1042	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1043	301 225 1418	MT-GLAZE 47K JA 1/16W
R1044	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1046	301 260 4115	MT-GLAZE 75 JA 1/3W
R1047	301 225 1814	MT-GLAZE 47 JA 1/16W
R1048	301 260 4115	MT-GLAZE 75 JA 1/3W
R1049	301 225 1814	MT-GLAZE 47 JA 1/16W
R1051	301 260 4115	MT-GLAZE 75 JA 1/3W
R1052	301 225 1814	MT-GLAZE 47 JA 1/16W
R1061	301 224 8913	MT-GLAZE 100K JA 1/16W
R1062	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1063	301 225 0619	MT-GLAZE 5.6K JA 1/16W
R1064	301 224 9316	MT-GLAZE 1K JA 1/16W
R1066	301 224 9316	MT-GLAZE 1K JA 1/16W
R1071	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R1072	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R1073	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R1081	301 225 8110	MT-GLAZE 10 JA 1/16W
R1082	301 224 9316	MT-GLAZE 1K JA 1/16W
R1301	301 225 7915	MT-GLAZE 220 JA 1/16W
R1302	301 224 8913	MT-GLAZE 100K JA 1/16W
R1304	945 086 6662	IMPEDANCE,600 OHM P
R1309	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1311	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1312	301 224 9316	MT-GLAZE 1K JA 1/16W
R1331	301 224 9415	MT-GLAZE 1M JA 1/16W
R1373	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1374	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1376	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R1378	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R1379	301 225 8110	MT-GLAZE 10 JA 1/16W
R1381	301 225 8110	MT-GLAZE 10 JA 1/16W
R1393	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1394	301 225 0213	MT-GLAZE 3.3K JA 1/16W

Key No.	Part No.	Description
R1581	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R1583	301 224 8814	MT-GLAZE 100 JA 1/16W
R1584	301 224 9316	MT-GLAZE 1K JA 1/16W
R1801	301 224 9019	MT-GLAZE 10K JA 1/16W
R1802	301 224 9019	MT-GLAZE 10K JA 1/16W
R1803	301 224 9019	MT-GLAZE 10K JA 1/16W
R1804	301 224 9019	MT-GLAZE 10K JA 1/16W
R1807	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1808	301 225 0619	MT-GLAZE 5.6K JA 1/16W
R1809	301 224 9019	MT-GLAZE 10K JA 1/16W
R1822	301 224 9019	MT-GLAZE 10K JA 1/16W
R1823	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R2001	301 224 8814	MT-GLAZE 100 JA 1/16W
R2002	301 224 8814	MT-GLAZE 100 JA 1/16W
R2501	301 224 8814	MT-GLAZE 100 JA 1/16W
R2502	301 224 8814	MT-GLAZE 100 JA 1/16W
R2503	301 224 8814	MT-GLAZE 100 JA 1/16W
R2521	301 224 8913	MT-GLAZE 100K JA 1/16W
R2531	301 224 8814	MT-GLAZE 100 JA 1/16W
R2532	301 224 8814	MT-GLAZE 100 JA 1/16W
R2533	301 224 8814	MT-GLAZE 100 JA 1/16W
R2551	301 224 8913	MT-GLAZE 100K JA 1/16W
R2561	301 224 8814	MT-GLAZE 100 JA 1/16W
R2562	301 224 8814	MT-GLAZE 100 JA 1/16W
R2563	301 224 8814	MT-GLAZE 100 JA 1/16W
R2581	301 224 8913	MT-GLAZE 100K JA 1/16W
R2821	301 226 2414	MT-GLAZE 560 JA 1/16W
R2831	301 260 4115	MT-GLAZE 75 JA 1/3W
R2832	301 260 4115	MT-GLAZE 75 JA 1/3W
R2833	301 224 8814	MT-GLAZE 100 JA 1/16W
R2892	301 224 9316	MT-GLAZE 1K JA 1/16W
R2894	301 224 9316	MT-GLAZE 1K JA 1/16W
R2895	301 224 9316	MT-GLAZE 1K JA 1/16W
R2896	301 224 9316	MT-GLAZE 1K JA 1/16W
R2898	301 224 9316	MT-GLAZE 1K JA 1/16W
R3001	301 260 4115	MT-GLAZE 75 JA 1/3W
R3002	301 260 4115	MT-GLAZE 75 JA 1/3W
R3003	301 260 4115	MT-GLAZE 75 JA 1/3W
R3004	301 260 4115	MT-GLAZE 75 JA 1/3W
R3006	301 260 4115	MT-GLAZE 75 JA 1/3W
R3007	301 260 4115	MT-GLAZE 75 JA 1/3W
R303	301 224 9712	MT-GLAZE 22 JA 1/16W
R304	301 224 9316	MT-GLAZE 1K JA 1/16W
R306	301 224 9316	MT-GLAZE 1K JA 1/16W
R309	301 225 8516	MT-GLAZE 1.8K JA 1/16W
R312	301 224 9019	MT-GLAZE 10K JA 1/16W
R313	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R316	301 224 9712	MT-GLAZE 22 JA 1/16W
R317	301 224 9712	MT-GLAZE 22 JA 1/16W
R333	301 224 9019	MT-GLAZE 10K JA 1/16W
R336	301 225 8110	MT-GLAZE 10 JA 1/16W
R337	301 225 8110	MT-GLAZE 10 JA 1/16W
R3402	301 224 9019	MT-GLAZE 10K JA 1/16W
R3403	301 224 9019	MT-GLAZE 10K JA 1/16W
R3404	301 224 9019	MT-GLAZE 10K JA 1/16W
R3406	301 224 9019	MT-GLAZE 10K JA 1/16W
R3407	301 224 9019	MT-GLAZE 10K JA 1/16W
R341	301 225 0619	MT-GLAZE 5.6K JA 1/16W
R3413	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3416	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3417	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3418	301 224 9712	MT-GLAZE 22 JA 1/16W
R3419	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R342	301 224 9019	MT-GLAZE 10K JA 1/16W
R3421	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3422	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3423	301 226 1516	MT-GLAZE 0.000 ZA 1/16W

Key No.	Part No.	Description
R3424	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3426	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3431	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R3479	301 224 9019	MT-GLAZE 10K JA 1/16W
R3491	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3492	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3493	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3494	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3496	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3497	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3501	301 224 8913	MT-GLAZE 100K JA 1/16W
R3503	301 225 1418	MT-GLAZE 47K JA 1/16W
R3531	301 224 8913	MT-GLAZE 100K JA 1/16W
R3533	301 225 1418	MT-GLAZE 47K JA 1/16W
R3561	301 224 8913	MT-GLAZE 100K JA 1/16W
R3563	301 225 1418	MT-GLAZE 47K JA 1/16W
R3602	301 261 2011	MT-GLAZE 9.1K JA 1/16W
R3603	301 294 3511	MT-GLAZE 27K FA 1/16W
R3604	301 294 3016	MT-GLAZE 10K FA 1/16W
R3606	301 224 9019	MT-GLAZE 10K JA 1/16W
R3607	301 224 9019	MT-GLAZE 10K JA 1/16W
R3608	301 294 3511	MT-GLAZE 27K FA 1/16W
R3609	301 294 3016	MT-GLAZE 10K FA 1/16W
R361	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3611	301 224 9019	MT-GLAZE 10K JA 1/16W
R3612	301 224 9019	MT-GLAZE 10K JA 1/16W
R3616	301 224 9019	MT-GLAZE 10K JA 1/16W
R3618	301 224 9019	MT-GLAZE 10K JA 1/16W
R362	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3622	301 224 9019	MT-GLAZE 10K JA 1/16W
R363	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3632	301 225 1418	MT-GLAZE 47K JA 1/16W
R3633	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R3634	301 294 3016	MT-GLAZE 10K FA 1/16W
R3636	301 287 2227	MT-GLAZE 22K FA 1/16W
R3637	301 294 3115	MT-GLAZE 1K FA 1/16W
R364	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3642	301 225 1418	MT-GLAZE 47K JA 1/16W
R3643	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R3644	301 294 3016	MT-GLAZE 10K FA 1/16W
R3646	301 294 3115	MT-GLAZE 1K FA 1/16W
R3647	301 294 3115	MT-GLAZE 1K FA 1/16W
R3652	301 225 1418	MT-GLAZE 47K JA 1/16W
R3653	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R3654	301 294 3016	MT-GLAZE 10K FA 1/16W
R3656	301 294 2613	MT-GLAZE 4.7K FA 1/16W
R3657	301 225 8011	MT-GLAZE 330 JA 1/16W
R371	301 224 9712	MT-GLAZE 22 JA 1/16W
R372	301 224 9712	MT-GLAZE 22 JA 1/16W
R373	301 224 9712	MT-GLAZE 22 JA 1/16W
R374	301 224 9712	MT-GLAZE 22 JA 1/16W
R376	301 224 9712	MT-GLAZE 22 JA 1/16W
R377	301 224 9712	MT-GLAZE 22 JA 1/16W
R3803	301 224 8814	MT-GLAZE 100 JA 1/16W
R3804	301 261 1410	MT-GLAZE 430 JA 1/16W
R3805	301 225 2019	MT-GLAZE 680 JA 1/16W
R3806	301 224 9019	MT-GLAZE 10K JA 1/16W
R382	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R396	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4001	301 260 4115	MT-GLAZE 75 JA 1/3W
R4002	301 260 4115	MT-GLAZE 75 JA 1/3W
R4003	301 260 4115	MT-GLAZE 75 JA 1/3W
R401	301 225 1814	MT-GLAZE 47 JA 1/16W
R403	301 225 1814	MT-GLAZE 47 JA 1/16W
R404	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R406	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R407	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R408	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R411	301 225 1814	MT-GLAZE 47 JA 1/16W
R412	301 225 1814	MT-GLAZE 47 JA 1/16W
R414	301 225 1814	MT-GLAZE 47 JA 1/16W
R416	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R421	301 225 1814	MT-GLAZE 47 JA 1/16W
R422	301 225 1814	MT-GLAZE 47 JA 1/16W
R424	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R426	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R427	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R428	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R429	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R431	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R432	301 225 1814	MT-GLAZE 47 JA 1/16W
R434	301 225 1814	MT-GLAZE 47 JA 1/16W
R436	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R439	301 224 8814	MT-GLAZE 100 JA 1/16W
R4401	301 224 9316	MT-GLAZE 1K JA 1/16W
R4402	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R441	301 225 1814	MT-GLAZE 47 JA 1/16W
R4414	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4418	301 224 9019	MT-GLAZE 10K JA 1/16W
R442	301 225 1814	MT-GLAZE 47 JA 1/16W
R4421	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4427	301 224 9019	MT-GLAZE 10K JA 1/16W
R4428	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4431	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4432	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4433	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4434	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4437	301 224 9712	MT-GLAZE 22 JA 1/16W
R444	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4442	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4443	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4444	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4447	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4448	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4449	301 225 8110	MT-GLAZE 10 JA 1/16W
R4452	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R446	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4461	301 224 9712	MT-GLAZE 22 JA 1/16W
R4462	301 224 9712	MT-GLAZE 22 JA 1/16W
R4463	301 224 9712	MT-GLAZE 22 JA 1/16W
R4464	301 224 9712	MT-GLAZE 22 JA 1/16W
R4466	301 224 9712	MT-GLAZE 22 JA 1/16W
R4467	301 224 9712	MT-GLAZE 22 JA 1/16W
R447	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4477	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4478	301 224 9019	MT-GLAZE 10K JA 1/16W
R448	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4483	301 224 9019	MT-GLAZE 10K JA 1/16W
R4484	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4488	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4489	301 224 9019	MT-GLAZE 10K JA 1/16W
R449	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4491	301 224 9019	MT-GLAZE 10K JA 1/16W
R4493	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4494	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4496	301 225 1814	MT-GLAZE 47 JA 1/16W
R4499	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R451	301 225 1814	MT-GLAZE 47 JA 1/16W
R452	301 225 1814	MT-GLAZE 47 JA 1/16W
R454	301 225 1814	MT-GLAZE 47 JA 1/16W
R456	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4603	301 259 7823	MT-GLAZE 20K JA 1/16W
R461	301 224 8814	MT-GLAZE 100 JA 1/16W
R4611	301 259 7823	MT-GLAZE 20K JA 1/16W

Key No.	Part No.	Description
R4612	301 225 0718	MT-GLAZE 56K JA 1/16W
R4613	301 224 9019	MT-GLAZE 10K JA 1/16W
R4614	301 224 9019	MT-GLAZE 10K JA 1/16W
R4616	301 224 9019	MT-GLAZE 10K JA 1/16W
R4618	301 224 9019	MT-GLAZE 10K JA 1/16W
R4619	301 224 9019	MT-GLAZE 10K JA 1/16W
R462	301 224 8814	MT-GLAZE 100 JA 1/16W
R4621	301 224 9019	MT-GLAZE 10K JA 1/16W
R4622	301 225 0718	MT-GLAZE 56K JA 1/16W
R463	301 224 8814	MT-GLAZE 100 JA 1/16W
R4641	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R4713	301 224 8913	MT-GLAZE 100K JA 1/16W
R477	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4800	301 224 9019	MT-GLAZE 10K JA 1/16W
R4806	301 224 9415	MT-GLAZE 1M JA 1/16W
R4807	301 225 8110	MT-GLAZE 10 JA 1/16W
R4811	301 224 9019	MT-GLAZE 10K JA 1/16W
R4816	945 086 6662	IMPEDANCE,600 OHM P
R4817	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R4819	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R4828	301 225 8110	MT-GLAZE 10 JA 1/16W
R4829	301 225 8110	MT-GLAZE 10 JA 1/16W
R4838	301 224 9316	MT-GLAZE 1K JA 1/16W
R4851	301 224 9316	MT-GLAZE 1K JA 1/16W
R4853	301 225 7915	MT-GLAZE 220 JA 1/16W
R4854	301 225 7915	MT-GLAZE 220 JA 1/16W
R4857	301 301 3510	MT-GLAZE 200 JA 1/16W
R501	301 224 9316	MT-GLAZE 1K JA 1/16W
R502	301 225 8110	MT-GLAZE 10 JA 1/16W
R5201	301 225 0312	MT-GLAZE 33 JA 1/16W
R5202	301 225 0312	MT-GLAZE 33 JA 1/16W
R5203	301 225 8110	MT-GLAZE 10 JA 1/16W
R5204	301 225 8110	MT-GLAZE 10 JA 1/16W
R5206	301 225 8110	MT-GLAZE 10 JA 1/16W
R5207	301 225 8110	MT-GLAZE 10 JA 1/16W
R5208	301 224 9415	MT-GLAZE 1M JA 1/16W
R5209	301 224 9415	MT-GLAZE 1M JA 1/16W
R5211	301 224 9316	MT-GLAZE 1K JA 1/16W
R5221	301 225 8110	MT-GLAZE 10 JA 1/16W
R5222	301 225 8110	MT-GLAZE 10 JA 1/16W
R5223	301 225 8110	MT-GLAZE 10 JA 1/16W
R5231	301 224 9316	MT-GLAZE 1K JA 1/16W
R5232	301 225 8110	MT-GLAZE 10 JA 1/16W
R5233	301 225 1814	MT-GLAZE 47 JA 1/16W
R5234	301 225 8110	MT-GLAZE 10 JA 1/16W
R5236	301 224 9316	MT-GLAZE 1K JA 1/16W
R5241	301 225 8110	MT-GLAZE 10 JA 1/16W
R5242	301 225 8110	MT-GLAZE 10 JA 1/16W
R5243	301 225 8110	MT-GLAZE 10 JA 1/16W
R531	301 224 9316	MT-GLAZE 1K JA 1/16W
R532	301 225 8110	MT-GLAZE 10 JA 1/16W
R5601	301 225 2118	MT-GLAZE 12K JA 1/16W
R5602	301 294 3511	MT-GLAZE 27K FA 1/16W
R5603	301 294 3016	MT-GLAZE 10K FA 1/16W
R5604	301 224 9019	MT-GLAZE 10K JA 1/16W
R5606	301 224 8913	MT-GLAZE 100K JA 1/16W
R5607	301 224 8913	MT-GLAZE 100K JA 1/16W
R5608	301 224 8913	MT-GLAZE 100K JA 1/16W
R5609	301 224 9019	MT-GLAZE 10K JA 1/16W
R561	301 224 9316	MT-GLAZE 1K JA 1/16W
R5611	301 294 3016	MT-GLAZE 10K FA 1/16W
R5612	301 294 3511	MT-GLAZE 27K FA 1/16W
R5613	301 224 9019	MT-GLAZE 10K JA 1/16W
R562	301 225 8110	MT-GLAZE 10 JA 1/16W
R5622	301 225 1418	MT-GLAZE 47K JA 1/16W
R5623	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R5624	301 294 3016	MT-GLAZE 10K FA 1/16W
R5626	301 287 2227	MT-GLAZE 22K FA 1/16W
R5627	301 294 3115	MT-GLAZE 1K FA 1/16W
R5642	301 225 1418	MT-GLAZE 47K JA 1/16W
R5643	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R5644	301 294 3016	MT-GLAZE 10K FA 1/16W
R5646	301 294 3313	MT-GLAZE 15K FA 1/16W
R5647	301 294 3115	MT-GLAZE 1K FA 1/16W
R5662	301 225 1418	MT-GLAZE 47K JA 1/16W
R5663	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R5664	301 294 3016	MT-GLAZE 10K FA 1/16W
R5666	301 294 2613	MT-GLAZE 4.7K FA 1/16W
R5667	301 298 6518	MT-GLAZE 3.3K FA 1/16W
R5807	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R5808	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R5809	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R5811	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R591	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R593	301 224 9019	MT-GLAZE 10K JA 1/16W
R594	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R6201	301 225 8110	MT-GLAZE 10 JA 1/16W
R6202	301 225 8110	MT-GLAZE 10 JA 1/16W
R6203	301 225 8110	MT-GLAZE 10 JA 1/16W
R6204	301 225 8110	MT-GLAZE 10 JA 1/16W
R6224	301 225 8110	MT-GLAZE 10 JA 1/16W
R6553	301 224 9316	MT-GLAZE 1K JA 1/16W
R6554	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6555	301 225 8110	MT-GLAZE 10 JA 1/16W
R6556	301 224 9316	MT-GLAZE 1K JA 1/16W
R6557	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6602	301 225 0114	MT-GLAZE 27K JA 1/16W
R6603	301 298 6518	MT-GLAZE 3.3K FA 1/16W
R6604	301 294 3016	MT-GLAZE 10K FA 1/16W
R6605	301 224 8913	MT-GLAZE 100K JA 1/16W
R6606	301 294 3016	MT-GLAZE 10K FA 1/16W
R6607	301 298 6518	MT-GLAZE 3.3K FA 1/16W
R6608	301 224 8913	MT-GLAZE 100K JA 1/16W
R6609	301 224 8913	MT-GLAZE 100K JA 1/16W
R6613	301 224 9019	MT-GLAZE 10K JA 1/16W
R6617	301 224 9019	MT-GLAZE 10K JA 1/16W
R6621	301 224 9019	MT-GLAZE 10K JA 1/16W
R6623	301 225 0114	MT-GLAZE 27K JA 1/16W
R6624	301 224 8913	MT-GLAZE 100K JA 1/16W
R6628	301 276 0415	MT-GLAZE 10M JA 1/16W
R6631	301 237 2915	MT-GLAZE 51 JA 1/16W
R6632	301 294 3511	MT-GLAZE 27K FA 1/16W
R6633	301 284 3326	MT-GLAZE 3K FA 1/16W
R6634	301 306 8619	MT-GLAZE 3.6K FA 1/16W
R6636	301 294 3115	MT-GLAZE 1K FA 1/16W
R6637	301 294 3016	MT-GLAZE 10K FA 1/16W
R6638	301 299 5114	MT-GLAZE 6.2K FA 1/16W
R6639	301 294 3016	MT-GLAZE 10K FA 1/16W
R6641	301 237 2915	MT-GLAZE 51 JA 1/16W
R6642	301 294 3511	MT-GLAZE 27K FA 1/16W
R6643	301 284 3326	MT-GLAZE 3K FA 1/16W
R6644	301 306 8619	MT-GLAZE 3.6K FA 1/16W
R6646	301 294 3115	MT-GLAZE 1K FA 1/16W
R6647	301 294 3016	MT-GLAZE 10K FA 1/16W
R6648	301 299 5114	MT-GLAZE 6.2K FA 1/16W
R6649	301 294 3016	MT-GLAZE 10K FA 1/16W
R6651	301 237 2915	MT-GLAZE 51 JA 1/16W
R6652	301 294 3511	MT-GLAZE 27K FA 1/16W
R6653	301 284 3326	MT-GLAZE 3K FA 1/16W
R6654	301 306 8619	MT-GLAZE 3.6K FA 1/16W
R6656	301 294 3115	MT-GLAZE 1K FA 1/16W
R6657	301 294 3016	MT-GLAZE 10K FA 1/16W
R6658	301 299 5114	MT-GLAZE 6.2K FA 1/16W
R6659	301 294 3016	MT-GLAZE 10K FA 1/16W

Key No.	Part No.	Description
R6661	301 237 2915	MT-GLAZE 51 JA 1/16W
R6662	301 294 3511	MT-GLAZE 27K FA 1/16W
R6663	301 299 4810	MT-GLAZE 2.7K FA 1/16W
R6664	301 306 8619	MT-GLAZE 3.6K FA 1/16W
R6666	301 294 3115	MT-GLAZE 1K FA 1/16W
R6667	301 294 3016	MT-GLAZE 10K FA 1/16W
R6668	301 299 5114	MT-GLAZE 6.2K FA 1/16W
R6669	301 294 3016	MT-GLAZE 10K FA 1/16W
R7701	301 224 9613	MT-GLAZE 2.7K JA 1/16W
R7703	301 224 9316	MT-GLAZE 1K JA 1/16W
R7704	301 237 2410	MT-GLAZE 270K JA 1/16W
R7711	301 237 2410	MT-GLAZE 270K JA 1/16W
R7713	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R7716	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R7718	301 224 9019	MT-GLAZE 10K JA 1/16W
R7719	301 224 9019	MT-GLAZE 10K JA 1/16W
R7720	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7721	301 225 1517	MT-GLAZE 3.9K JA 1/16W
R7729	301 224 9316	MT-GLAZE 1K JA 1/16W
R7731	301 224 9316	MT-GLAZE 1K JA 1/16W
R7732	301 224 9316	MT-GLAZE 1K JA 1/16W
R7733	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R7734	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R7742	301 225 9018	MT-GLAZE 470K JA 1/16W
R7743	301 225 9018	MT-GLAZE 470K JA 1/16W
R7744	301 224 9316	MT-GLAZE 1K JA 1/16W
R7746	301 227 5612	MT-GLAZE 8.2K JA 1/16W
R7748	301 227 5612	MT-GLAZE 8.2K JA 1/16W
R7751	301 225 8516	MT-GLAZE 1.8K JA 1/16W
R7764	301 224 8913	MT-GLAZE 100K JA 1/16W
R7773	301 224 9316	MT-GLAZE 1K JA 1/16W
R7776	301 224 9217	MT-GLAZE 15K JA 1/16W
R7780	301 224 9316	MT-GLAZE 1K JA 1/16W
R7781	301 225 0619	MT-GLAZE 5.6K JA 1/16W
R7782	301 234 9917	MT-GLAZE 6.8K JA 1/16W
R7783	301 225 8011	MT-GLAZE 330 JA 1/16W
R7786	301 224 9316	MT-GLAZE 1K JA 1/16W
R7787	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7801	301 224 9019	MT-GLAZE 10K JA 1/16W
R7802	301 224 9019	MT-GLAZE 10K JA 1/16W
R7803	301 224 9316	MT-GLAZE 1K JA 1/16W
R7806	301 224 9019	MT-GLAZE 10K JA 1/16W
R7807	301 224 9019	MT-GLAZE 10K JA 1/16W
R7808	301 224 9316	MT-GLAZE 1K JA 1/16W
R7811	301 224 9019	MT-GLAZE 10K JA 1/16W
R7812	301 224 9019	MT-GLAZE 10K JA 1/16W
R7813	301 224 9316	MT-GLAZE 1K JA 1/16W
R7816	301 224 9019	MT-GLAZE 10K JA 1/16W
R7817	301 224 9019	MT-GLAZE 10K JA 1/16W
R7818	301 224 9316	MT-GLAZE 1K JA 1/16W
R7821	301 224 9019	MT-GLAZE 10K JA 1/16W
R7822	301 224 9019	MT-GLAZE 10K JA 1/16W
R7823	301 224 9316	MT-GLAZE 1K JA 1/16W
R7842	301 225 8110	MT-GLAZE 10 JA 1/16W
R7843	301 225 8110	MT-GLAZE 10 JA 1/16W
R8001	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8002	301 224 9019	MT-GLAZE 10K JA 1/16W
R8003	301 224 9019	MT-GLAZE 10K JA 1/16W
R8004	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8006	301 224 9019	MT-GLAZE 10K JA 1/16W
R8007	301 224 9019	MT-GLAZE 10K JA 1/16W
R801	301 224 9019	MT-GLAZE 10K JA 1/16W
R8011	301 225 0312	MT-GLAZE 33 JA 1/16W
R8012	301 225 0312	MT-GLAZE 33 JA 1/16W
R8013	301 225 0312	MT-GLAZE 33 JA 1/16W
R8014	301 225 0312	MT-GLAZE 33 JA 1/16W
R8016	301 225 0312	MT-GLAZE 33 JA 1/16W
R802	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R803	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8031	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R804	301 224 9019	MT-GLAZE 10K JA 1/16W
R806	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8061	301 225 0312	MT-GLAZE 33 JA 1/16W
R8062	301 224 9415	MT-GLAZE 1M JA 1/16W
R807	301 224 9019	MT-GLAZE 10K JA 1/16W
R808	301 224 9019	MT-GLAZE 10K JA 1/16W
R8081	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R8082	301 224 9019	MT-GLAZE 10K JA 1/16W
R8103	301 224 9019	MT-GLAZE 10K JA 1/16W
R8104	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R8105	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R8111	301 225 1418	MT-GLAZE 47K JA 1/16W
R8112	301 225 1418	MT-GLAZE 47K JA 1/16W
R812	301 224 9019	MT-GLAZE 10K JA 1/16W
R8121	301 224 9019	MT-GLAZE 10K JA 1/16W
R8122	301 224 9019	MT-GLAZE 10K JA 1/16W
R8123	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8126	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8133	301 224 9019	MT-GLAZE 10K JA 1/16W
R8141	301 225 1418	MT-GLAZE 47K JA 1/16W
R8142	301 225 1418	MT-GLAZE 47K JA 1/16W
R8151	301 224 9019	MT-GLAZE 10K JA 1/16W
R8152	301 224 9019	MT-GLAZE 10K JA 1/16W
R8153	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8156	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8166	301 224 9019	MT-GLAZE 10K JA 1/16W
R8167	301 224 9019	MT-GLAZE 10K JA 1/16W
R8171	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8173	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8200	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R8201	301 339 4817	MT-GLAZE 91 FA 1/16W
R8202	301 338 6713	MT-GLAZE 1.6K FA 1/16W
R8203	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8206	301 224 9613	MT-GLAZE 2.7K JA 1/16W
R8207	301 224 9613	MT-GLAZE 2.7K JA 1/16W
R8209	301 225 0619	MT-GLAZE 5.6K JA 1/16W
R8212	301 224 8814	MT-GLAZE 100 JA 1/16W
R8213	301 224 8814	MT-GLAZE 100 JA 1/16W
R8214	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8216	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8217	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8218	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8221	301 224 9019	MT-GLAZE 10K JA 1/16W
R8222	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R8223	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8224	301 224 9415	MT-GLAZE 1M JA 1/16W
R8226	301 225 8110	MT-GLAZE 10 JA 1/16W
R8227	301 225 0312	MT-GLAZE 33 JA 1/16W
R8228	301 225 0312	MT-GLAZE 33 JA 1/16W
R8251	301 224 8814	MT-GLAZE 100 JA 1/16W
R8252	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R8261	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R8262	301 224 9019	MT-GLAZE 10K JA 1/16W
R8271	301 225 8110	MT-GLAZE 10 JA 1/16W
R8272	301 225 8110	MT-GLAZE 10 JA 1/16W
R8281	301 224 8814	MT-GLAZE 100 JA 1/16W
R8282	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R8291	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R8292	301 224 9019	MT-GLAZE 10K JA 1/16W
R839	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R842	301 224 9316	MT-GLAZE 1K JA 1/16W
R846	301 224 9316	MT-GLAZE 1K JA 1/16W
R847	301 224 9316	MT-GLAZE 1K JA 1/16W
R8702	301 224 9316	MT-GLAZE 1K JA 1/16W

Key No.	Part No.	Description
R8703	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R8706	301 224 9316	MT-GLAZE 1K JA 1/16W
R8707	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R871	301 259 7823	MT-GLAZE 20K JA 1/16W
R8713	301 224 9217	MT-GLAZE 15K JA 1/16W
R8714	301 225 0114	MT-GLAZE 27K JA 1/16W
R872	301 225 2118	MT-GLAZE 12K JA 1/16W
R873	301 224 9019	MT-GLAZE 10K JA 1/16W
R874	301 225 8110	MT-GLAZE 10 JA 1/16W
R876	301 224 9217	MT-GLAZE 15K JA 1/16W
R877	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R878	301 224 9019	MT-GLAZE 10K JA 1/16W
R881	301 225 2118	MT-GLAZE 12K JA 1/16W
R882	301 225 2118	MT-GLAZE 12K JA 1/16W
R8821	301 225 8615	MT-GLAZE 560K JA 1/16W
R8822	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R883	301 224 9019	MT-GLAZE 10K JA 1/16W
R8831	301 225 8615	MT-GLAZE 560K JA 1/16W
R8832	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R884	301 225 8110	MT-GLAZE 10 JA 1/16W
R8841	301 225 8110	MT-GLAZE 10 JA 1/16W
R8842	301 225 8110	MT-GLAZE 10 JA 1/16W
R8843	301 224 9019	MT-GLAZE 10K JA 1/16W
R8844	301 224 9019	MT-GLAZE 10K JA 1/16W
R8846	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R8851	301 224 8814	MT-GLAZE 100 JA 1/16W
R8852	301 224 8814	MT-GLAZE 100 JA 1/16W
R8853	301 224 8913	MT-GLAZE 100K JA 1/16W
R8854	301 224 8913	MT-GLAZE 100K JA 1/16W
R8856	301 225 1814	MT-GLAZE 47 JA 1/16W
R8857	301 225 1814	MT-GLAZE 47 JA 1/16W
R8858	301 224 9316	MT-GLAZE 1K JA 1/16W
R8859	301 225 8516	MT-GLAZE 1.8K JA 1/16W
R886	301 224 9217	MT-GLAZE 15K JA 1/16W
R887	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R891	301 224 9019	MT-GLAZE 10K JA 1/16W
R892	301 224 9019	MT-GLAZE 10K JA 1/16W
R893	301 224 9910	MT-GLAZE 22K JA 1/16W
R894	301 224 9910	MT-GLAZE 22K JA 1/16W
RB3401	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB3402	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB3403	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB3406	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB3407	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB3408	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB3409	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB371	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB372	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB373	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB374	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB376	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB377	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB401	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W

Key No.	Part No.	Description
RB402	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB403	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB404	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB406	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB421	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB422	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB423	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB424	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB426	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB441	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB4411	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB4412	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB4413	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4414	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4416	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4417	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB442	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB4421	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4422	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4423	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4424	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4426	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4427	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4428	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4429	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB443	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB4431	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4432	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB4433	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB444	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB446	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB521	945 029 5783	R-NETWORK 100X4 1/32W
	945 028 0697	R-NETWORK 100X4 1/16W
RB551	945 029 5783	R-NETWORK 100X4 1/32W
	945 028 0697	R-NETWORK 100X4 1/16W
RB581	945 029 5783	R-NETWORK 100X4 1/32W

Key No.	Part No.	Description
	945 028 0697	R-NETWORK 100X4 1/16W
RB8001	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8002	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8003	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8004	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8006	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8251	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8252	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8253	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8254	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8257	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8258	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
RB8259	645 049 0675	R-NETWORK 33X4 1/32W
	945 049 0690	R-NETWORK 33X4 1/16W
COIL		
L1011	945 070 3660	INDUCTOR,90 OHM
L1012	945 070 3660	INDUCTOR,90 OHM
L1013	945 070 3660	INDUCTOR,90 OHM
L1014	945 070 3660	INDUCTOR,90 OHM
L1031	945 070 3660	INDUCTOR,90 OHM
L1032	945 070 3660	INDUCTOR,90 OHM
L1033	945 070 3660	INDUCTOR,90 OHM
L1034	945 070 3660	INDUCTOR,90 OHM
L1041	945 086 7577	FILTER,EMI 400MHZ
L1042	945 086 7577	FILTER,EMI 400MHZ
L1043	945 086 7577	FILTER,EMI 400MHZ
L1044	945 086 7577	FILTER,EMI 400MHZ
L1046	945 086 7577	FILTER,EMI 400MHZ
L1581	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2001	945 086 7560	FILTER,EMI 200MHZ
L2002	945 086 7560	FILTER,EMI 200MHZ
L2501	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2502	945 086 6662	IMPEDANCE,600 OHM P
L2531	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2532	945 086 6662	IMPEDANCE,600 OHM P
L2561	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2562	945 086 6662	IMPEDANCE,600 OHM P
L2881	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2882	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2883	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2884	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2894	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2896	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2897	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L2899	945 086 6662	IMPEDANCE,600 OHM P
L3001	945 086 7577	FILTER,EMI 400MHZ
L3002	945 086 7577	FILTER,EMI 400MHZ
L3003	945 086 7577	FILTER,EMI 400MHZ
L3004	945 086 7577	FILTER,EMI 400MHZ
L3006	945 086 7577	FILTER,EMI 400MHZ
L3007	945 086 7577	FILTER,EMI 400MHZ
L301	945 086 6662	IMPEDANCE,600 OHM P
L302	945 086 6662	IMPEDANCE,600 OHM P
L303	945 086 6662	IMPEDANCE,600 OHM P
L304	945 086 6662	IMPEDANCE,600 OHM P
L3431	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L3432	945 086 6662	IMPEDANCE,600 OHM P
L3433	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L3434	945 086 6662	IMPEDANCE,600 OHM P
L3436	945 086 6662	IMPEDANCE,600 OHM P
L3501	945 086 6662	IMPEDANCE,600 OHM P
L3531	945 086 6662	IMPEDANCE,600 OHM P
L3561	945 086 6662	IMPEDANCE,600 OHM P
L3631	945 079 1469	INDUCTOR,10U M
L3632	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L3641	945 079 1469	INDUCTOR,10U M
L3642	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L3651	945 062 2930	INDUCTOR,10U M
L3652	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L4001	945 086 7461	FILTER,EMI 100MHZ
L4004	945 086 7461	FILTER,EMI 100MHZ
L4006	945 086 7461	FILTER,EMI 100MHZ
L4401	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L4601	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L4602	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L4603	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L4604	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L4606	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L4621	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L4631	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L4641	645 049 1672	IMPEDANCE,330 OHM P
L478	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L479	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L501	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L502	945 086 6662	IMPEDANCE,600 OHM P
L531	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L532	945 086 6662	IMPEDANCE,600 OHM P
L561	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L562	945 086 6662	IMPEDANCE,600 OHM P
L5621	945 079 1469	INDUCTOR,10U M
L5622	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L5641	945 079 1469	INDUCTOR,10U M
L5642	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L5661	945 062 2930	INDUCTOR,10U M
L5662	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L591	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L6631	945 079 1476	INDUCTOR,33U M
L6641	945 079 1476	INDUCTOR,33U M
L6651	945 079 1476	INDUCTOR,33U M
L6661	945 079 1476	INDUCTOR,33U M
L7721	945 086 6662	IMPEDANCE,600 OHM P
L7801	945 086 6044	IMPEDANCE,470 OHM P
L7802	945 086 6044	IMPEDANCE,470 OHM P
L7803	945 086 6044	IMPEDANCE,470 OHM P
L7804	945 086 6044	IMPEDANCE,470 OHM P
L7806	945 086 6044	IMPEDANCE,470 OHM P
L8001	945 002 5229	INDUCTOR,4.7U M
L8002	945 086 5368	IMPEDANCE,220 OHM P
L8003	945 086 5368	IMPEDANCE,220 OHM P
L8071	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L8081	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L8251	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L8261	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L8281	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L8291	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L8711	945 086 6662	IMPEDANCE,600 OHM P
DIODE		
D1001	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1002	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1003	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1004	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1021	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1022	307 254 4116	ZENER DIODE RSB6.8CS T2R

Key No.	Part No.	Description
D1023	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1024	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1041	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1042	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1043	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1044	307 254 4116	ZENER DIODE RSB6.8CS T2R
D1046	307 254 4116	ZENER DIODE RSB6.8CS T2R
D2001	307 254 4116	ZENER DIODE RSB6.8CS T2R
D2002	307 254 4116	ZENER DIODE RSB6.8CS T2R
D2881	307 163 0414	DIODE 1SS352-(TPH3)
D2882	307 163 0414	DIODE 1SS352-(TPH3)
D2883	307 163 0414	DIODE 1SS352-(TPH3)
D2884	307 163 0414	DIODE 1SS352-(TPH3)
D2886	307 163 0414	DIODE 1SS352-(TPH3)
D2887	307 163 0414	DIODE 1SS352-(TPH3)
D2894	307 254 4116	ZENER DIODE RSB6.8CS T2R
D3001	307 254 4116	ZENER DIODE RSB6.8CS T2R
D3002	307 254 4116	ZENER DIODE RSB6.8CS T2R
D3003	307 254 4116	ZENER DIODE RSB6.8CS T2R
D3004	307 254 4116	ZENER DIODE RSB6.8CS T2R
D3006	307 254 4116	ZENER DIODE RSB6.8CS T2R
D3007	307 254 4116	ZENER DIODE RSB6.8CS T2R
D3631	307 254 2716	DIODE CMS16
D3641	307 254 2716	DIODE CMS16
D3642	307 232 0413	ZENER DIODE UDZS2.0B-TE-17
D3651	307 254 2716	DIODE CMS16
D3801	307 163 0414	DIODE 1SS352-(TPH3)
D4001	307 254 4116	ZENER DIODE RSB6.8CS T2R
D4002	307 254 4116	ZENER DIODE RSB6.8CS T2R
D4101	307 254 4116	ZENER DIODE RSB6.8CS T2R
D4601	307 254 4116	ZENER DIODE RSB6.8CS T2R
D4602	307 223 0712	ZENER DIODE 02DZ20Y(TPH3)
D4603	307 254 4116	ZENER DIODE RSB6.8CS T2R
D4621	307 254 4116	ZENER DIODE RSB6.8CS T2R
D4631	307 223 0712	ZENER DIODE 02DZ20Y(TPH3)
D4800	307 163 0414	DIODE 1SS352-(TPH3)
D4851	307 254 4116	ZENER DIODE RSB6.8CS T2R
D4852	307 254 4116	ZENER DIODE RSB6.8CS T2R
D4853	307 254 4116	ZENER DIODE RSB6.8CS T2R
D4856	307 254 4116	ZENER DIODE RSB6.8CS T2R
D5621	307 254 2716	DIODE CMS16
D5622	307 254 4116	ZENER DIODE RSB6.8CS T2R
D5641	307 254 2716	DIODE CMS16
D5661	307 254 2716	DIODE CMS16
D6552	307 163 0414	DIODE 1SS352-(TPH3)
D6553	307 163 0414	DIODE 1SS352-(TPH3)
D6631	307 254 2716	DIODE CMS16
D6641	307 254 2716	DIODE CMS16
D6651	307 254 2716	DIODE CMS16
D6661	307 254 2716	DIODE CMS16
D7801	307 163 0414	DIODE 1SS352-(TPH3)
D7802	307 163 0414	DIODE 1SS352-(TPH3)
D7807	307 163 0414	DIODE 1SS352-(TPH3)
D7811	307 163 0414	DIODE 1SS352-(TPH3)
D7812	307 163 0414	DIODE 1SS352-(TPH3)
D7816	307 163 0414	DIODE 1SS352-(TPH3)
D7817	307 163 0414	DIODE 1SS352-(TPH3)
D7821	307 163 0414	DIODE 1SS352-(TPH3)
D7822	307 163 0414	DIODE 1SS352-(TPH3)
D8071TM	307 005 8605	DIODE ERA15-02
D8101	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
D8102	307 205 5216	DIODE RB521S-30-TE61
D8103	307 205 5216	DIODE RB521S-30-TE61
D8131	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
D8132	307 205 5216	DIODE RB521S-30-TE61
D8133	307 205 5216	DIODE RB521S-30-TE61
D8702	307 163 0414	DIODE 1SS352-(TPH3)
D8703	307 163 0414	DIODE 1SS352-(TPH3)
D875	307 163 0414	DIODE 1SS352-(TPH3)
D878	307 163 0414	DIODE 1SS352-(TPH3)
D880	307 163 0414	DIODE 1SS352-(TPH3)
D882	307 163 0414	DIODE 1SS352-(TPH3)
D8821	307 223 5410	ZENER DIODE UDZS2.4B-TE-17
D8831	307 223 5410	ZENER DIODE UDZS2.4B-TE-17
D884	307 163 0414	DIODE 1SS352-(TPH3)
D885	307 163 0414	DIODE 1SS352-(TPH3)
D8851	307 254 4116	ZENER DIODE RSB6.8CS T2R
D8852	307 254 4116	ZENER DIODE RSB6.8CS T2R
D887	307 163 0414	DIODE 1SS352-(TPH3)
D890	307 163 0414	DIODE 1SS352-(TPH3)
D8906	307 163 0414	DIODE 1SS352-(TPH3)
D891	307 163 0414	DIODE 1SS352-(TPH3)
D893	307 163 0414	DIODE 1SS352-(TPH3)
D896	307 163 0414	DIODE 1SS352-(TPH3)
D898	307 163 0414	DIODE 1SS352-(TPH3)
MISCELLANEOUS		
K10A	945 077 1058	SOCKET,IF(HDMI) 19P
K10B	945 077 1058	SOCKET,IF(HDMI) 19P
K10C	645 089 5272	SOCKET,D-SUB 15P
K10D	945 067 6124	TERMINAL,BOARD
K10E	945 071 9029	JACK,RCA-6
K10G	945 041 1077	SOCKET,DIN 8P
X1331	945 076 0281	OSC,CRYSTAL 14.31818MHZ
X4401	945 052 2728	OSC,CRISTAL,25.000MHZ
X4801	945 060 9900	OSC,CERAMIC 8.00MHZ
X8001	945 087 8856	OSC,CRYSTAL 28.322MHZ
X8201	945 078 1439	OSC,CRYSTAL 28.63636MHZ

PACKING MATERIALS

	910 327 3076	SPACER LNS PACKING M4WA
	910 330 9119	CARTON CASE-MC4A (PLV-Z5)
	610 331 9384	CARTON CASE-MC4AA (PLV-Z5BK)
	910 325 5492	CUSHION SPACER-M4WA
	910 327 5551	CUSHION LENS-M4WA
	910 324 5325	CUSHION BTM-M4WA
	910 324 5219	CUSHION TOP-M4WA
	945 086 1582	POLY BAG-0540X0600*NC

ACCESSORIES

MISCELLANEOUS

	910 324 5158	COMPL,DEC BLOWER-M4WA

PRINTED MATTER/OWNER'S MANUAL

	610 332 8225	SETUP INST MANUAL-MC4A
	610 332 8263	CD-ROM,OWNERS MANUAL-MC4A

REMOTE CONTROL

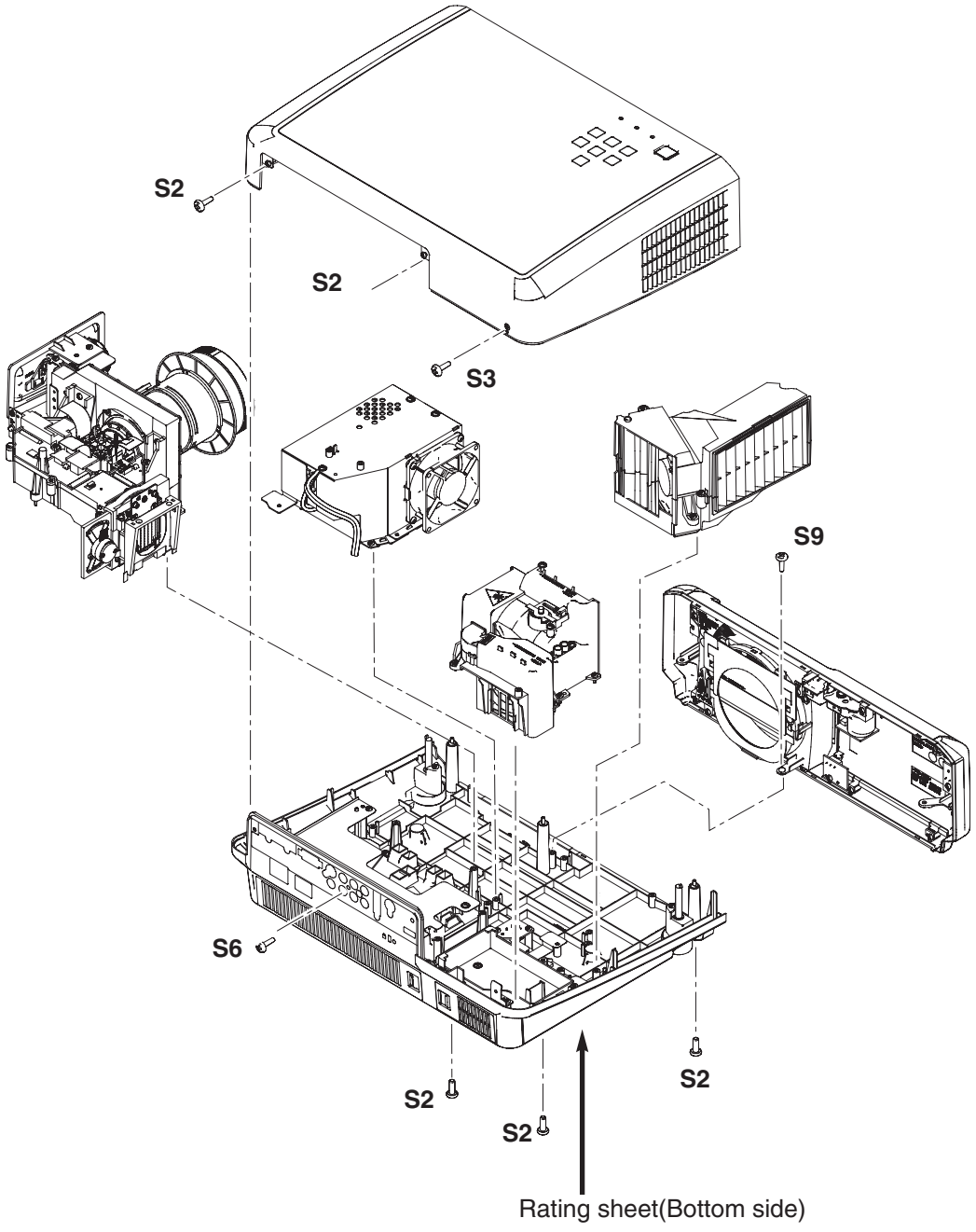
	945 087 1451	ASSY,REMOCON CXVT
	910 322 9554	RC-BATTERY LID-CXTS

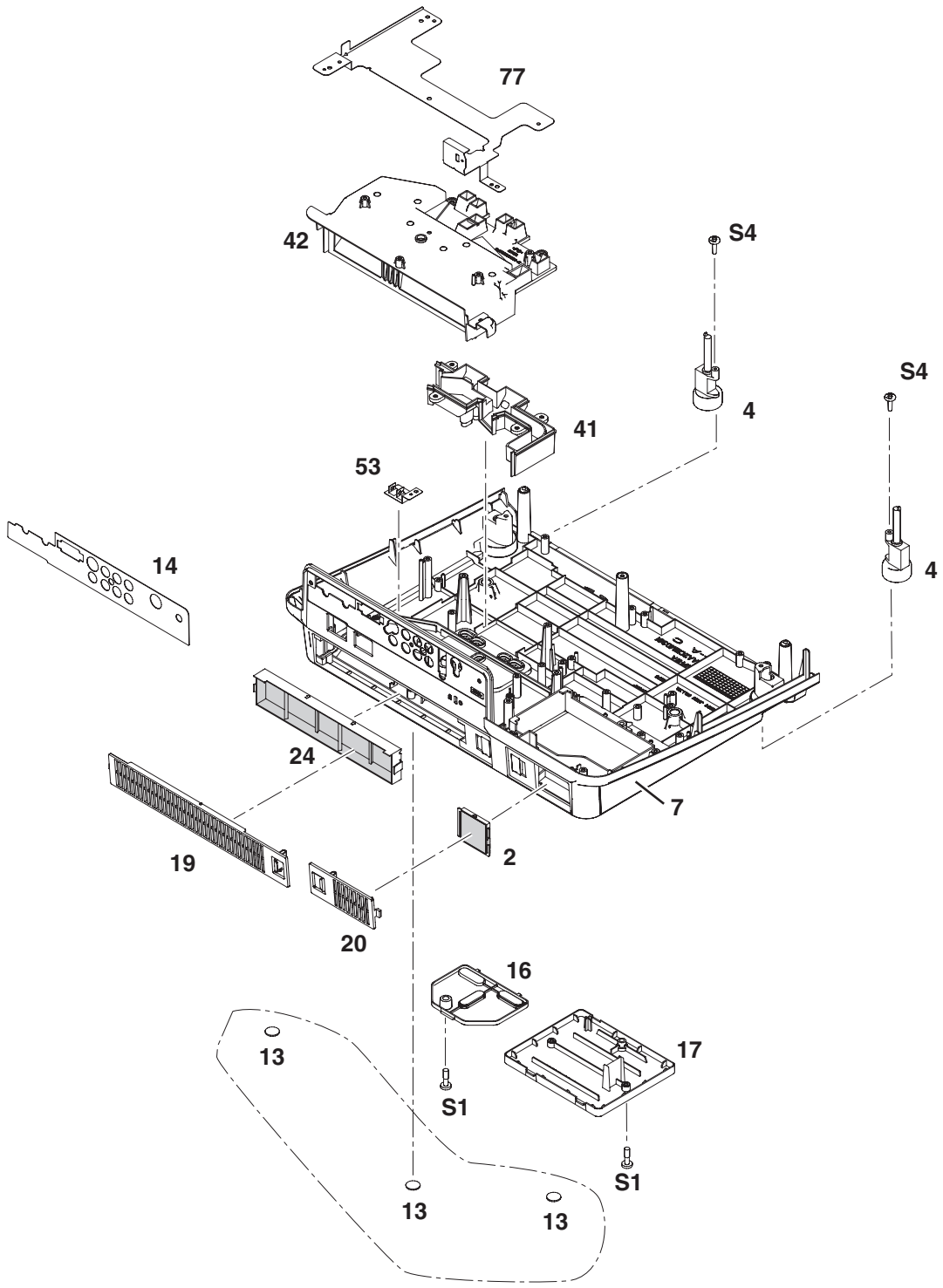
AC CORD

⚠(US)	945 058 7901	CORD,POWER-1.85MK,US
⚠(EU)	945 061 6656	CORD,POWER-1.85MK,EU
⚠(UK)	945 061 6663	CORD,POWER-1.85MK,UK

■ Mechanical and Optical Parts List

Note:
Part order must contain **Model No.**, **Chassis No.**, **Part No.**, and **descriptions**.
Give complete “Chassis No." for parts order or servicing, it is shown on the rating sheet on the cabinet bottom of the LCD projector.

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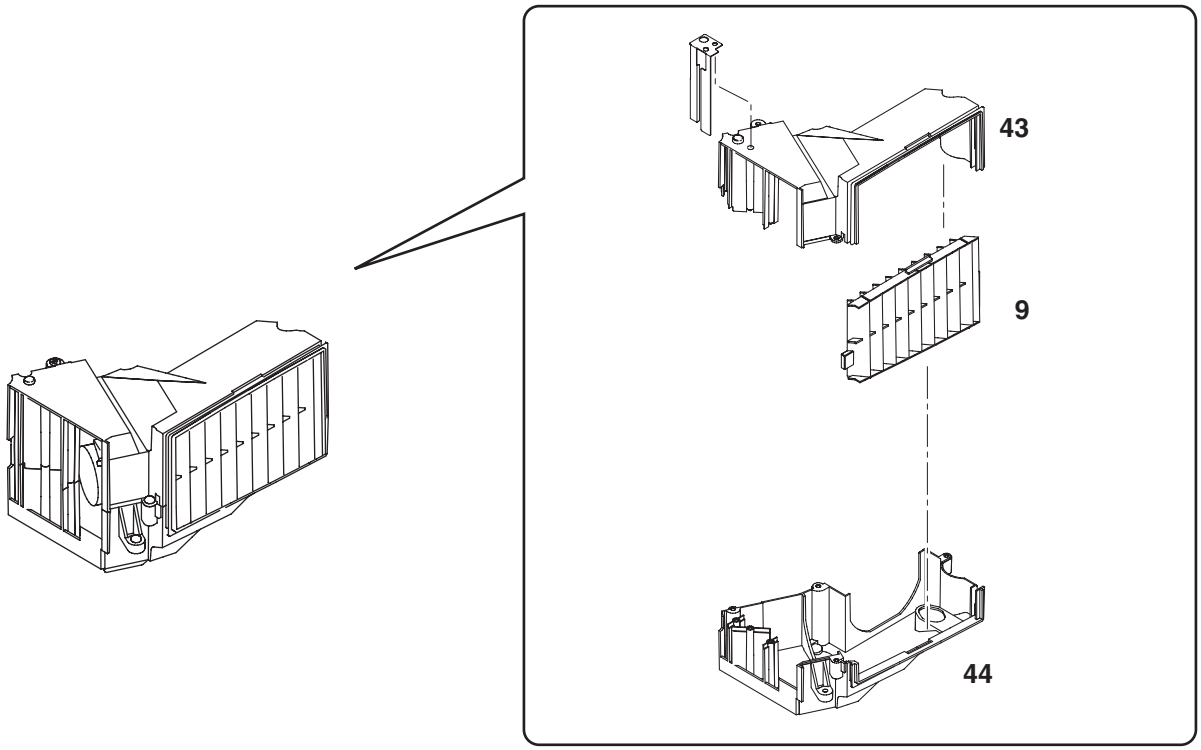
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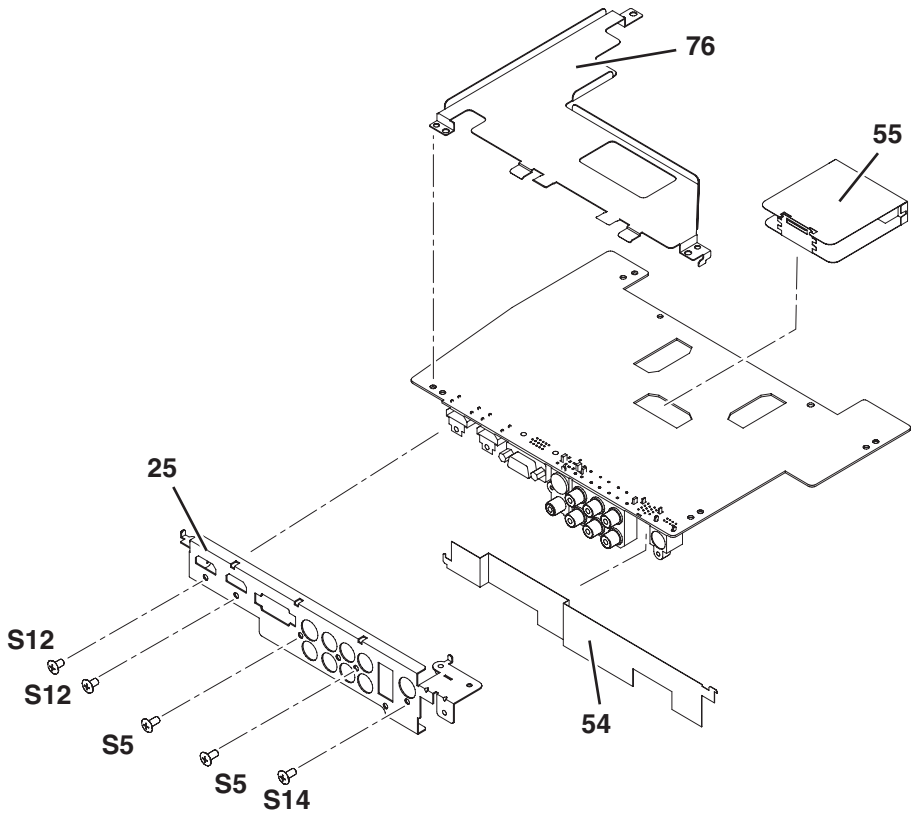
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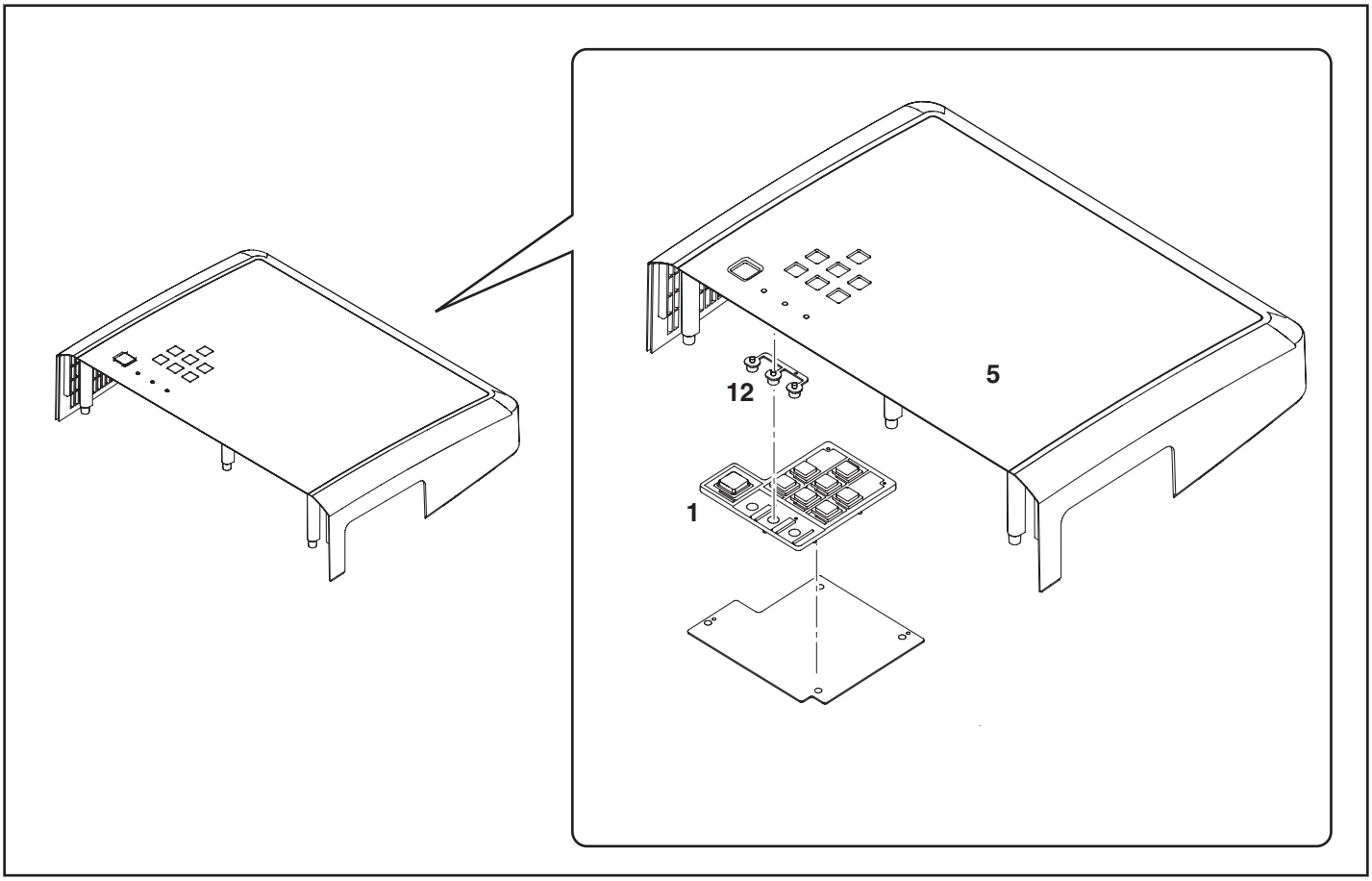
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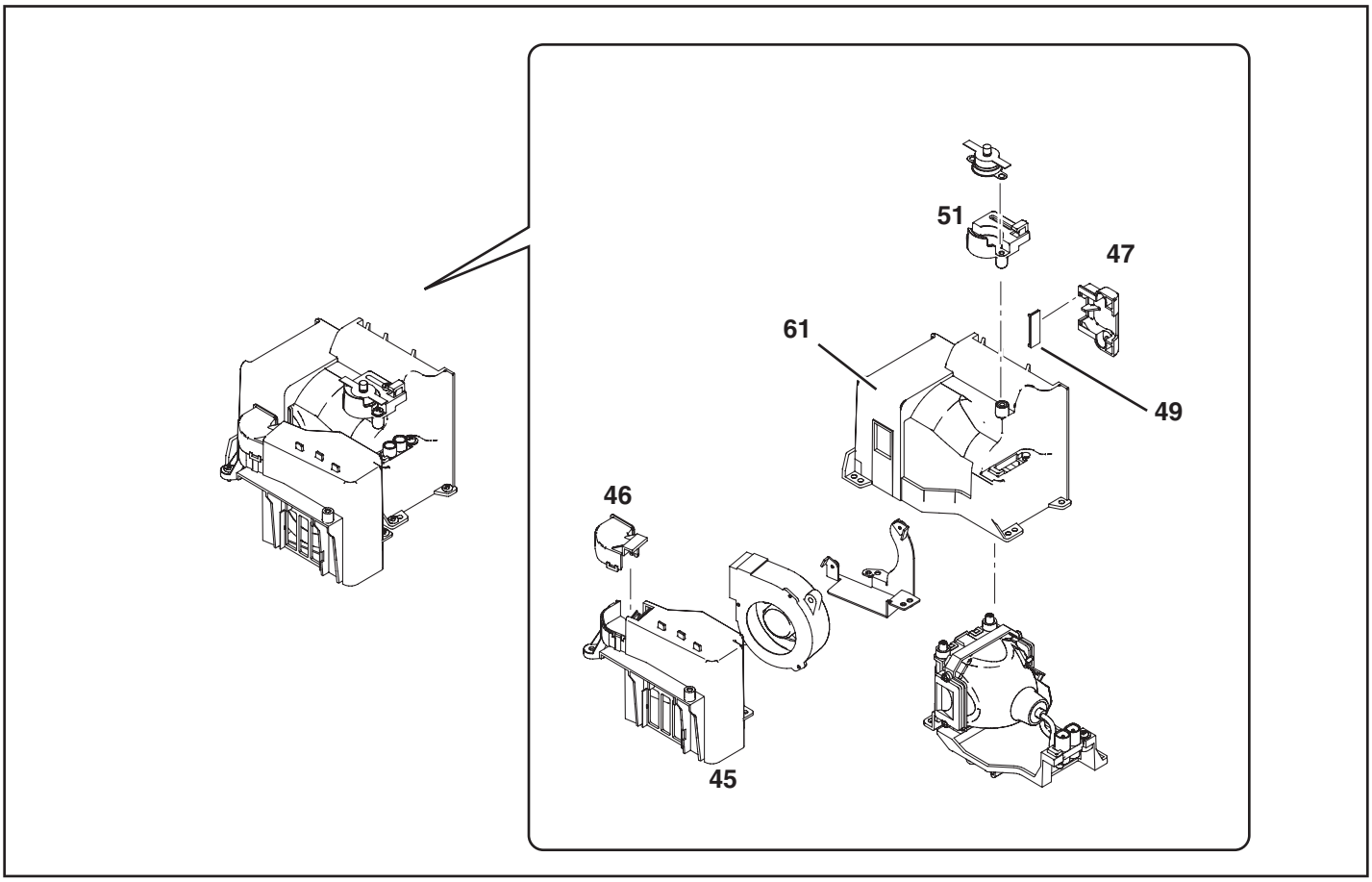
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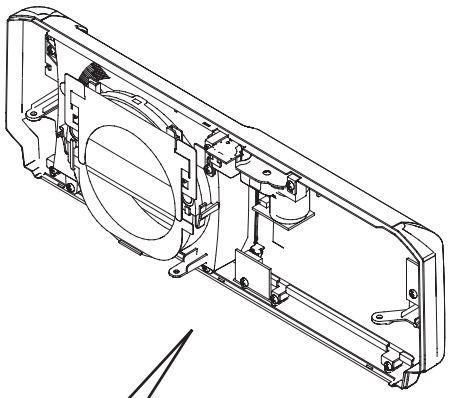

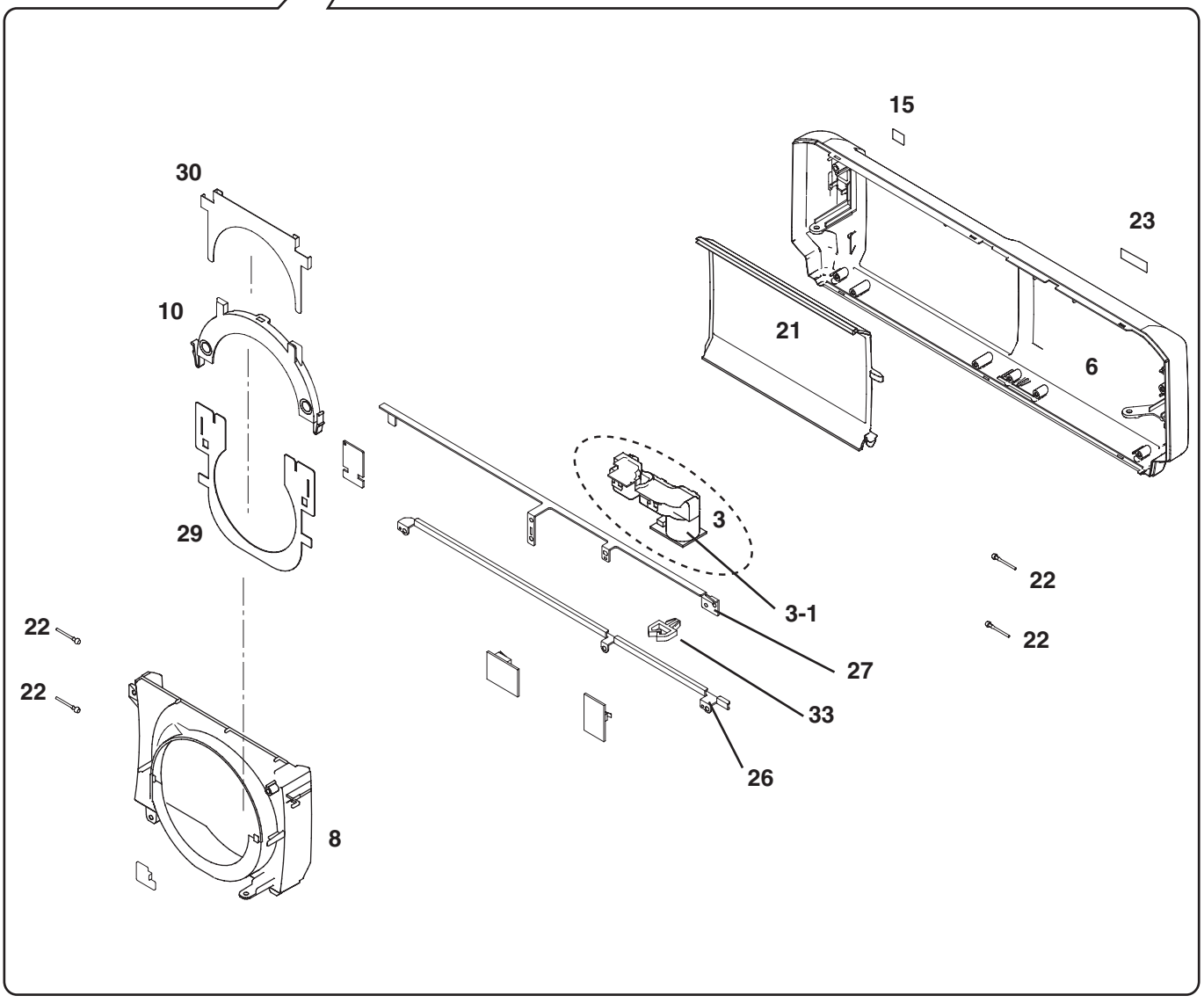
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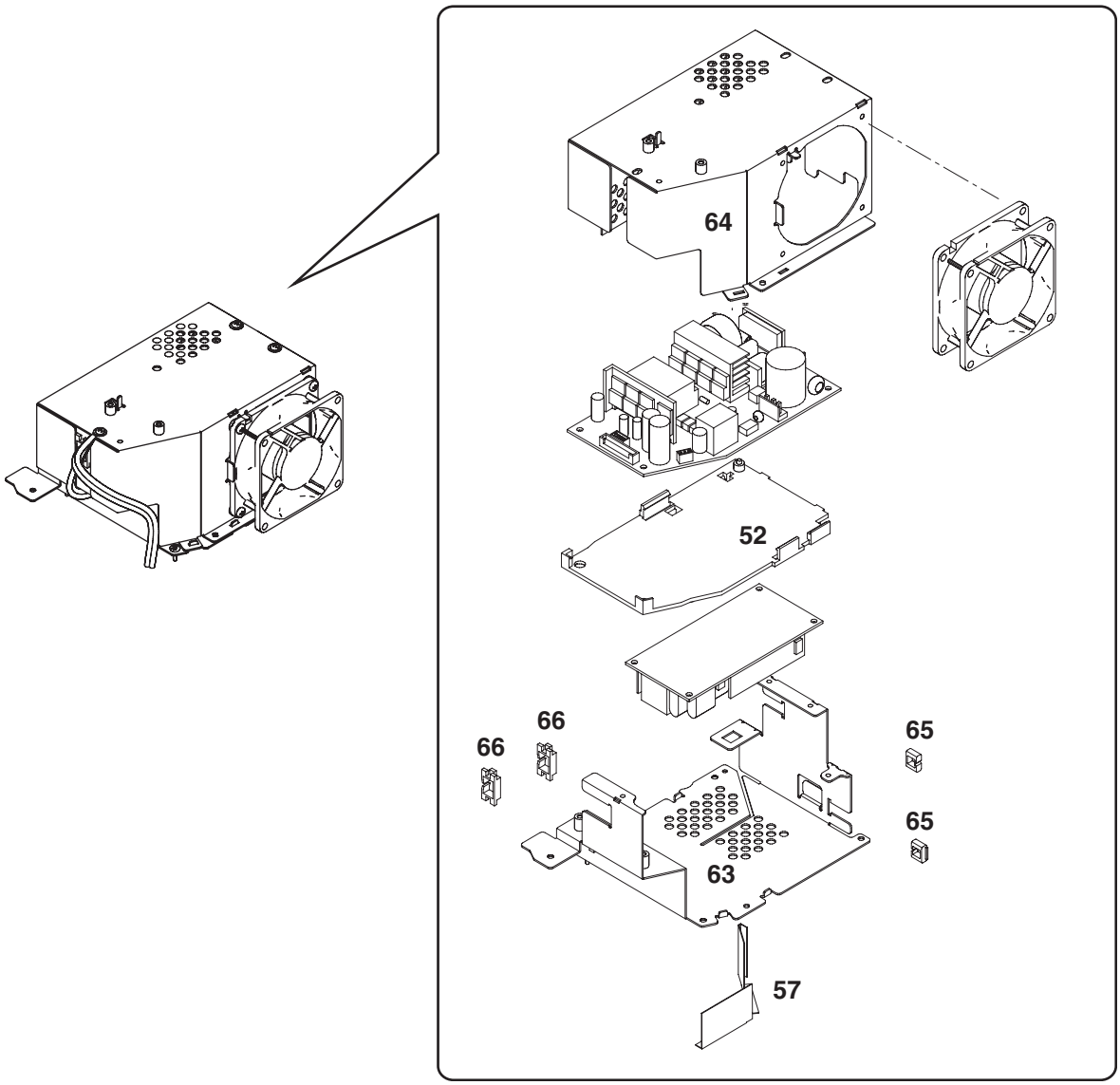
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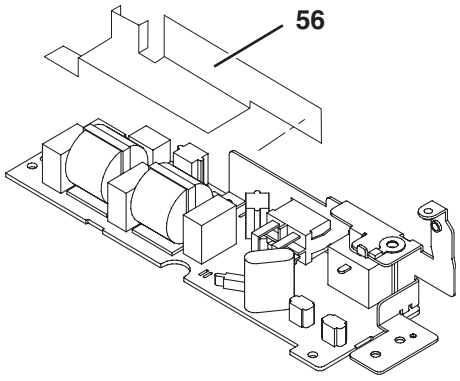
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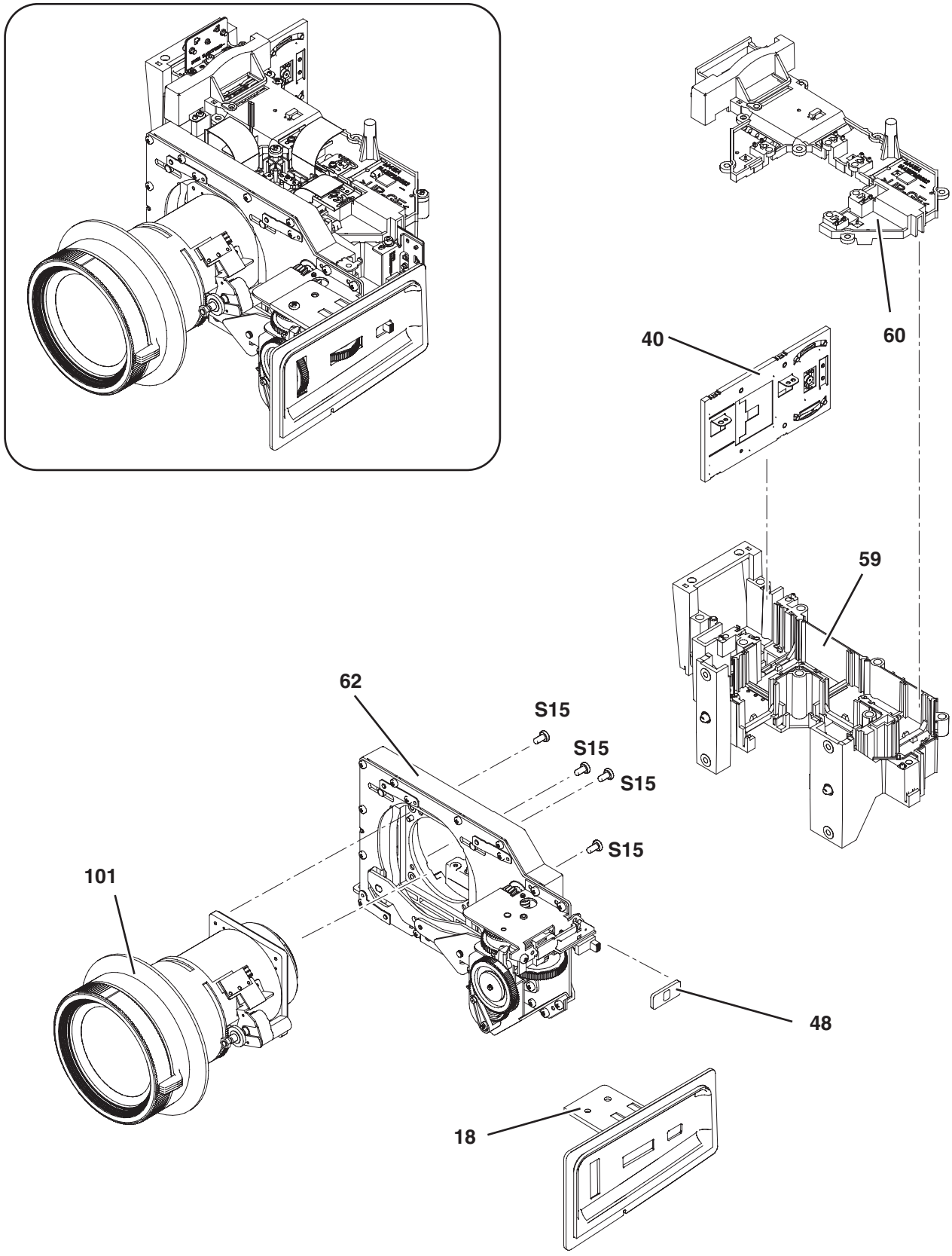
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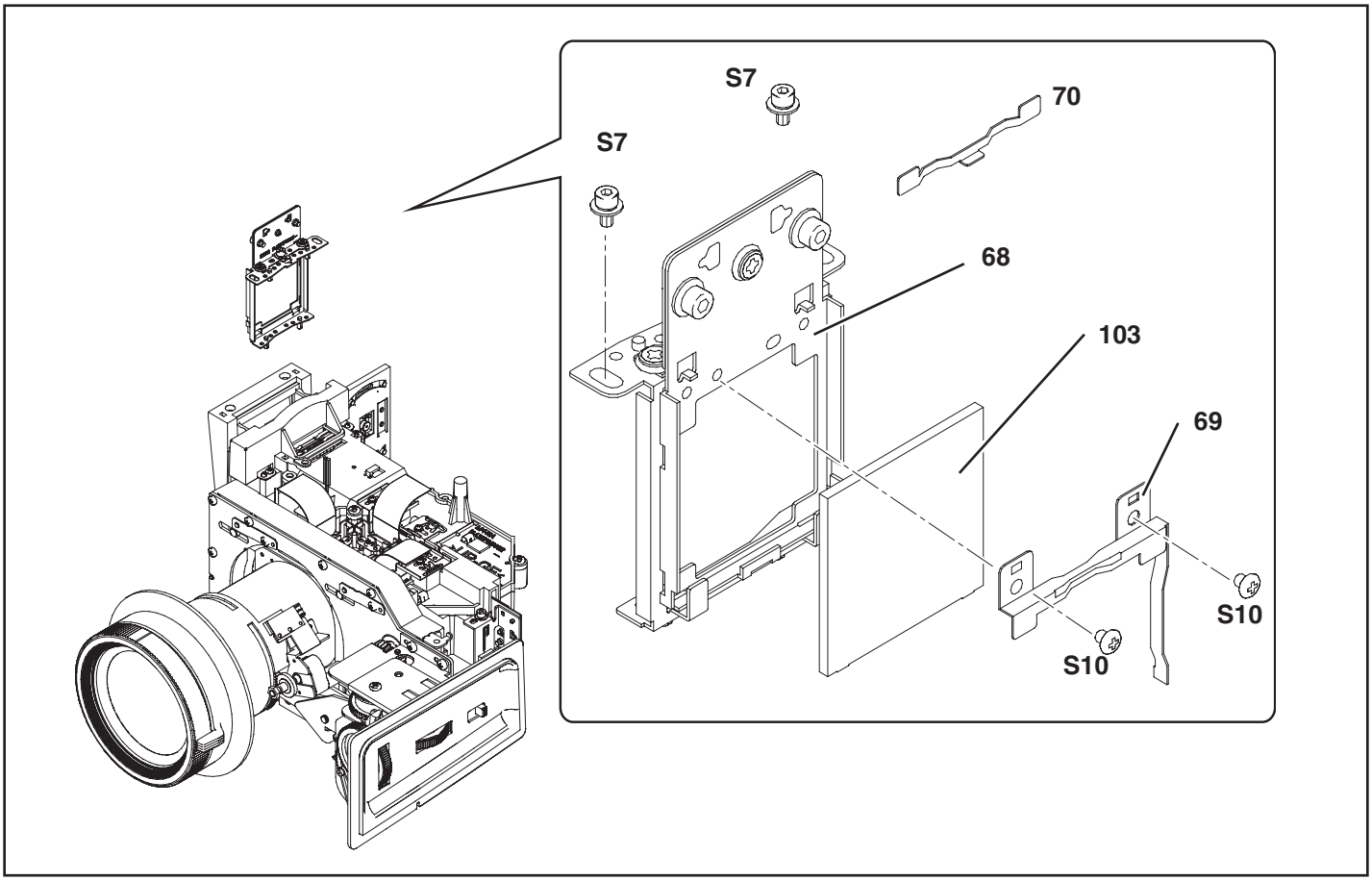
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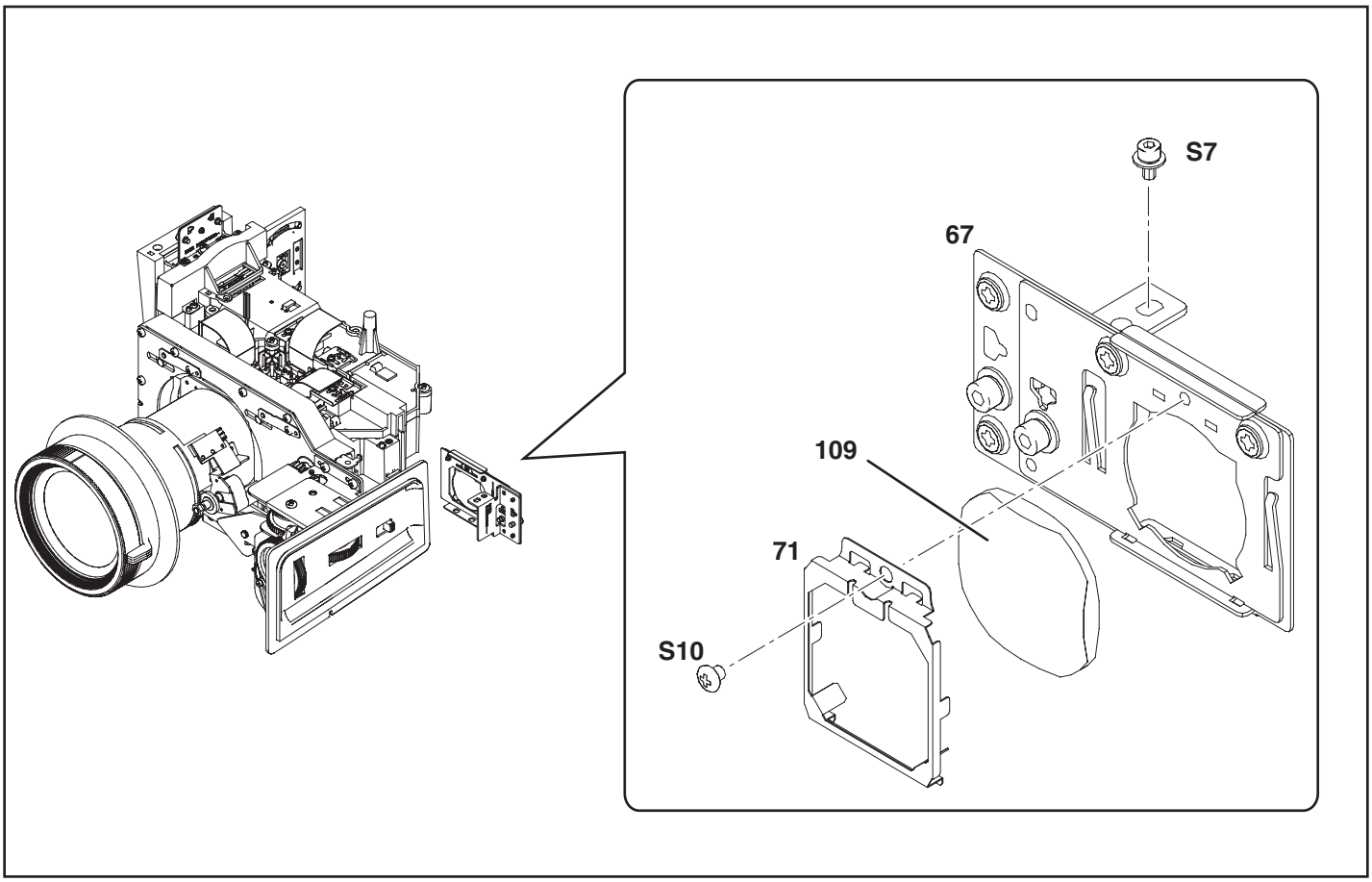
S10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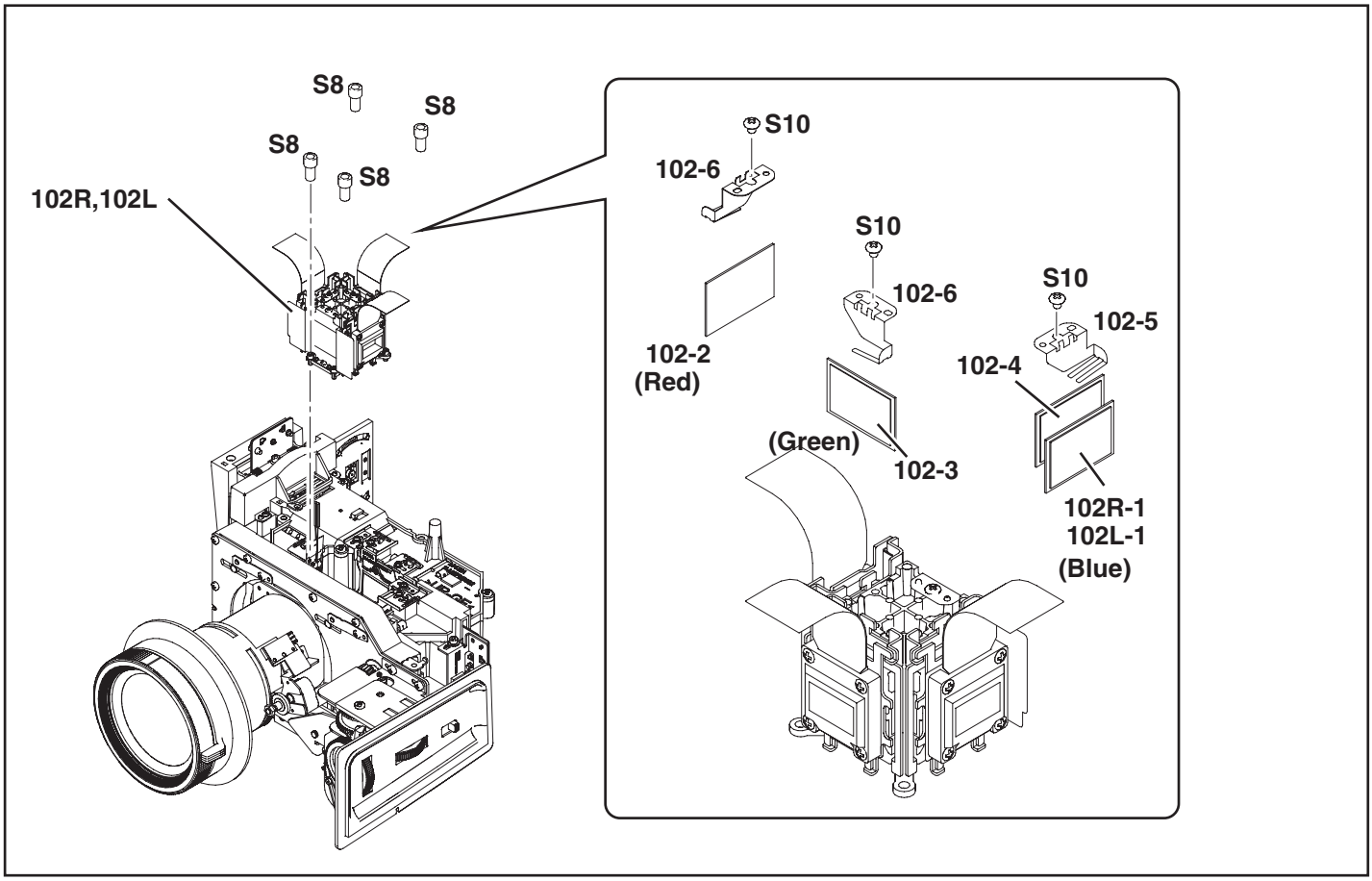
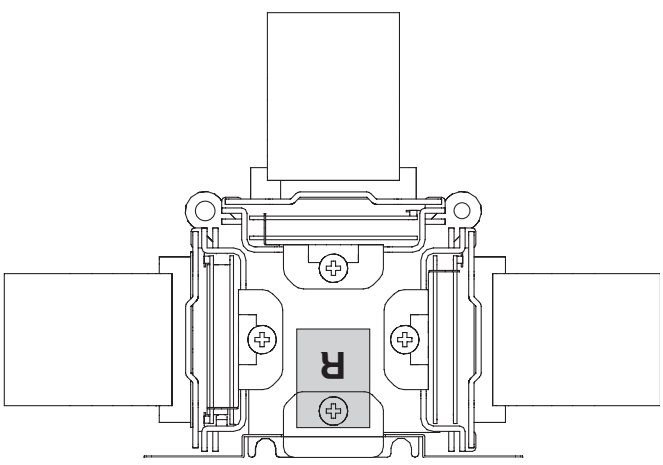
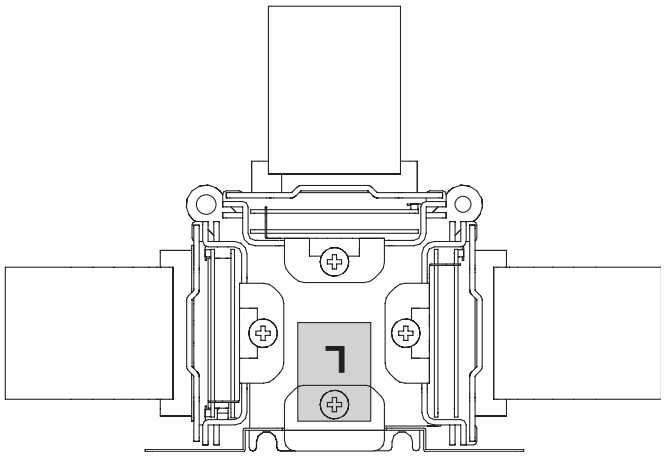


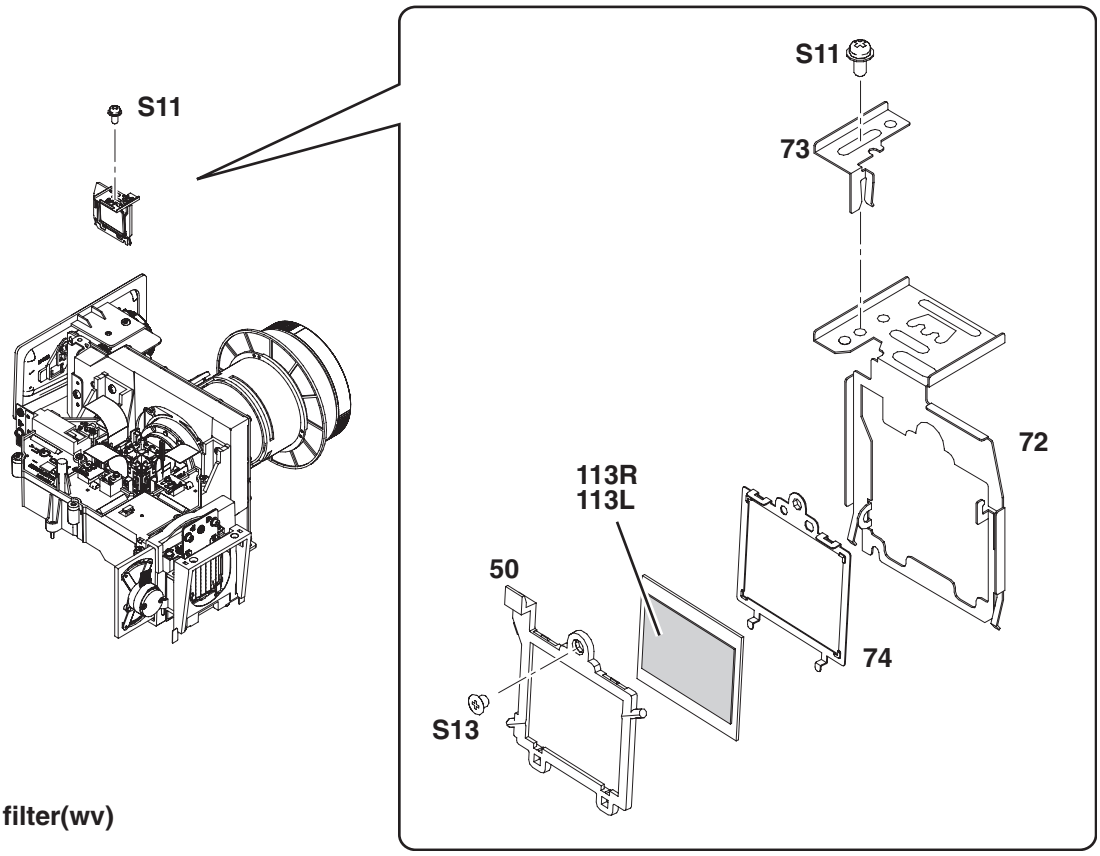
Note: There are 2 types combination of the LCD panel/prism assembly and the optical unit, named Type-R and Type-L. Since both have no compatibility, each type should be combined with the same type, and the specific parts should be used. If not, the poor optical characteristics may degrade the quality of a projected image.
Each LCD Panel/Prism ass'y must combine and use the specific Optical filter(key No.113) and the polarized glass(key No.117).



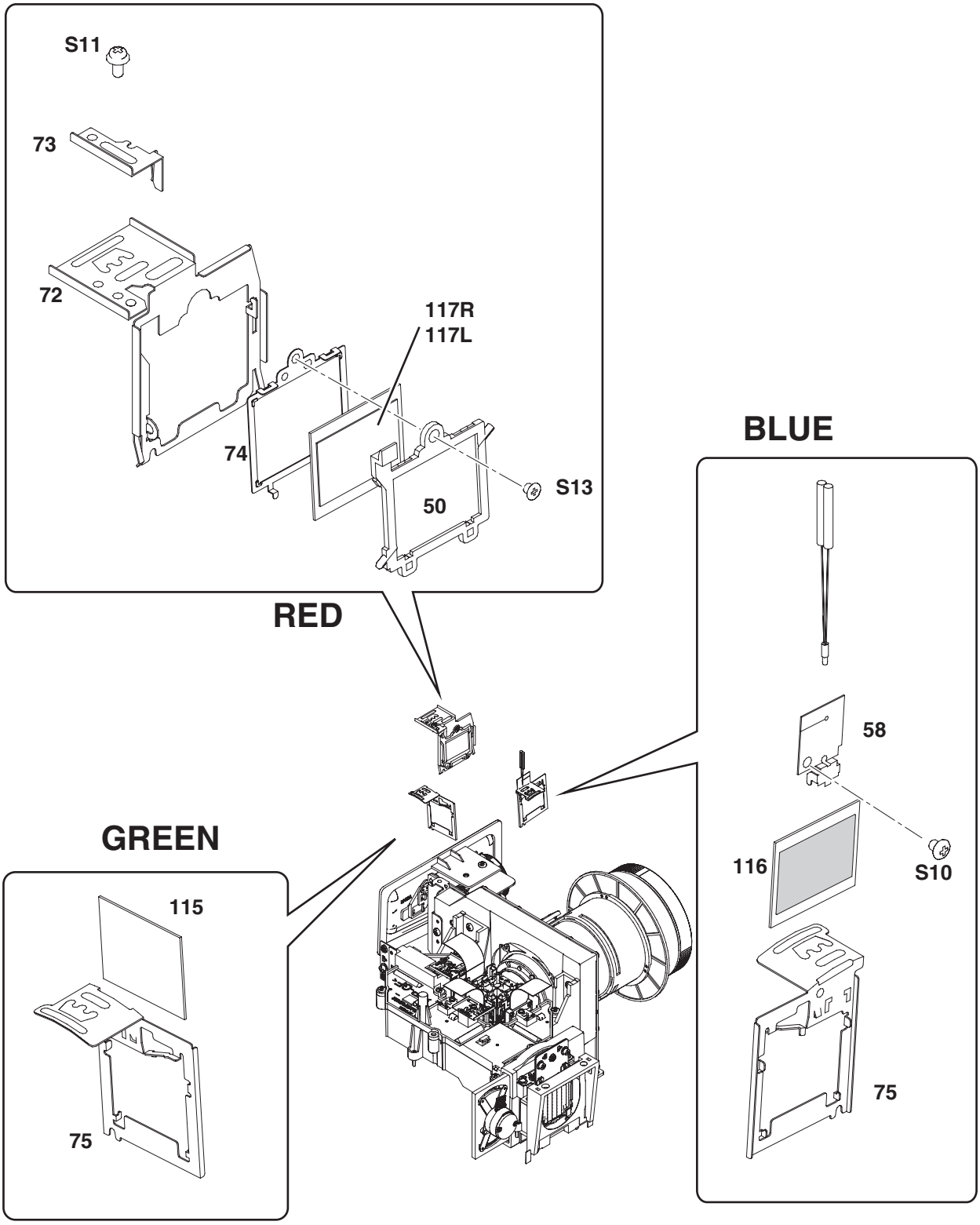
LCD Panel / Prism ass'y (Type R)



LCD Panel / Prism ass'y (Type L)



Green
Optical filter(wv)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117L
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RED
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S10
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GREEN
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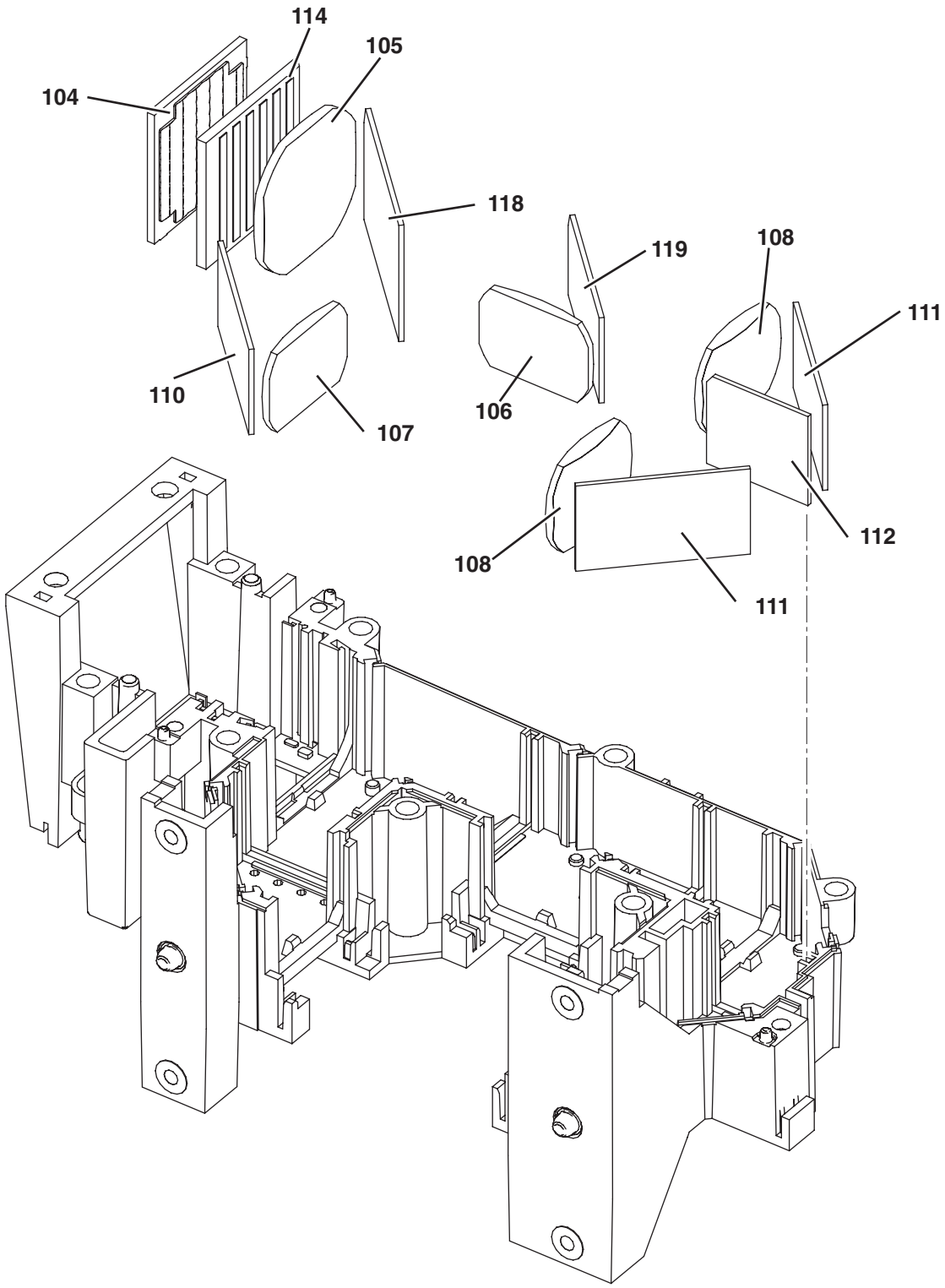
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PLV-Z5 MC4-Z500

CABINET,CHASSIS PARTS

Key No.	Part No.	Description
1	610 331 3795	ASSY,BUTTON-MC4A
2	910 326 9420	ASSY,FILTER LMP-M4WA
3	910 327 8613	COMPL,MOUNTING SHUTTER A-M4WA
3-1	910 325 3252	ASSY,MTG SHTR MOTOR-M4WA
4	910 323 4077	COMPL,STAND LEG-M4WA
5	610 331 3863	CABINET TOP SERVICE-MC4A
6	610 331 3955	CABINET FRONT SERVICE-MC4A
7	910 330 5043	CABINET BOTTOM-MC4A
8	610 331 3788	COVER LNS BOTTOM SERVICE-MC4A
9	910 327 4349	COVER DUCT EXIT SIDE A-M4WA
10	610 331 3894	COVER LNS TOP-MC4A
12	910 323 4060	DEC INLY LED-M4WA
13	610 331 3900	DEC LEG-MC4A
14	910 330 6910	DEC SHEET AV-MC4A
15	910 325 1845	DEC SHEET RC-M4WA
16	610 331 4273	PANEL BLOWER SERVICE-MC4A
17	610 331 4303	PANEL LMP-MC4A
18	610 331 3986	PANEL KNOB-MC4A
19	610 331 4297	PANEL FILTER-MC4A
20	610 331 3818	PANEL LMP FILTER-MC4A
21	910 331 3871	PANEL SHUTTER SERVICE-MC4A
22	910 302 7648	STOPPER LID-M4JA
23	945 063 7415	BADGE,SANYO*26.2X5.7L26.0
24	910 324 6216	COMPLE,FILTER-M4WC
25	910 325 3030	MOUNTING MAIN PWB A-MC4A
26	910 323 6118	MOUNTING SHUTTER BTM-M4WA
27	910 323 6156	MOUNTING SHUTTER UPPER-M4WA
29	910 324 5103	SPACER SHEET LNS BTM-M4WA
30	910 325 2699	SPACER SHEET LNS TOP-M4WA
33	945 022 0310	FIXER CLAMP
40	610 331 4815	COMPL,MOUNTING IRIS-MC4A
41	910 323 4039	COVER DUCT BTM-M4WA
42	910 323 4091	COVER DUCT TOP-M4WA
43	910 327 4585	COVER DUCT EXT LMP TOP A-M4WA
44	910 323 4480	COVER DUCT EXT LMP BTM-M4WA
45	910 327 3144	COVER DUCT LMP BTM A-M4WA
46	910 327 5070	COVER DUCT LMP TOP A-M4WA
47	910 327 2017	COVER DUCT LMP EXIT A-M4WA
48	910 325 4501	COVER SLIDE-M4WA
49	910 326 9604	FILTER LMP EXIT-M4WA
50	910 323 7184	HOLDER WV IN-M4WA
51	910 327 5995	MOUNTING TEMP SENS-M4WA
52	910 325 1043	MOUNTING BST-M4WA
53	910 324 5141	SPACER SHEET THERMISTOR-M4WA
54	910 327 3908	SPACER SHEET AV-M4WA
55	910 329 1155	SPACER SHEET BLOWER-M4WA
56	910 326 7303	SPACR SHET LINE FILTER A-M4WA
57	910 328 5529	SPACER SHEET BALLAST A-M4WA
58	910 323 9829	STOPPER THERM POL IN-M4WA
59	910 323 3995	OPTICAL BASE BTM-M4WA
60	910 323 4138	OPTICAL BASE TOP-M4WA
61	910 323 3872	OPTICAL BASE LMP-M4WA
62	910 323 4367	COMPL,MOUNTING LNS-M4WA
63	910 323 4299	MOUNTING POWER BTM-M4WA
64	910 323 4312	MOUNTING POWER TOP-M4WA
67	910 328 7059	COMPL,MOUNTING LNS REL-M4WA
68	910 325 1111	COMPL,MOUNTING LNS INT-M4WA
69	910 323 7320	STOPPER LNS INT IN C-M4WA
70	910 323 7511	STOPPER LNS INT IN D-M4WA
71	910 323 4459	STOPPER LNS REL-M4WA
72	910 323 7313	MOUNTING WV IN BASE-M4WA
73	910 323 7337	MOUNTING WV IN TOP-M4WA
74	910 323 7573	STOPPER WV IN-M4WA
75	910 324 0016	STOPPER POL IN-M4WA
76	910 326 9178	MOUNTING MAIN PWB C-M4WA
77	910 323 6125	SHIELD,COVER DUCT-M4WA

SCREWS

S1	312 069 7402	SPECIAL SCREW NI
S2	411 031 9304	SCR BIN 3X8
S3	411 052 9109	SCR OVL 3X6
S4	411 189 7207	SCR S-TPG BIN 3X8
S5	312 072 7000	SPECIAL SCREW
S6	411 185 8802	SCR S-TPG PAN 3X8
S7	411 189 6507	BOLT HEX-SCT+SW+W 2.5X5
S8	312 069 7105	SPECIAL SCREW V
S9	411 188 6706	SCR S-TPG BIN 3X8
S10	411 203 5400	SCR BIN 2X2
S11	411 203 5608	SCR PAN+SW+W 2X5
S12	312 072 6805	SPECIAL SCREW 3X5.0
S13	312 072 6003	SPECIAL SCREW
S14	411 205 6702	SCR PAN PCS 2.6X8
S15	411 204 0008	SCR PAN PCS 2.6X6

OPTICAL PARTS

101	645 089 8426	ASSY,LENS,PROJECTION
102R	910 331 4731	ASSY,LCD PNL/PSM R-MC4A
102R-1	945 083 1684	OPTICAL FILTER (WV-QZ)BL
102-2	945 083 1653	POLARIZED GLASS(OUT/R)
102-3	645 089 7764	POLARIZED GLASS(OUT/G)
102-4	645 089 8778	POLARIZED GLASS(OUT/B)
102-5	910 323 6040	STOPPER POL OUT UP-M4WA
102-6	910 326 8560	STOPPER POL OUT UP B-M4WA
102L	910 331 4717	ASSY,LCD PNL/PSM L-MC4A
102L-1	645 090 9900	OPTICAL FILTER (WV-QZ)BR
102-2	945 083 1653	POLARIZED GLASS(OUT/R)
102-3	645 089 7764	POLARIZED GLASS(OUT/G)
102-4	645 089 8778	POLARIZED GLASS(OUT/B)
102-5	910 323 6040	STOPPER POL OUT UP-M4WA
102-6	910 326 8560	STOPPER POL OUT UP B-M4WA
103	945 078 9107	LENS,INTEGRATOR(IN)
104	945 083 6528	LENS,INTEGRATOR(OUT)UV
105	945 078 9121	LENS,CONDENSER(OUT)
106	945 078 9138	LENS,CONDENSER(G)
107	945 078 9220	LENS,CONDENSER(B)
108	945 078 9237	LENS,CONDENSER(R)
109	945 078 9244	LENS,RELAY(OUT)
110	945 078 9305	MIRROR(B)
111	945 078 9312	MIRROR(R)
112	945 078 9343	OPTICAL FILTER (R)
113L	945 083 1677	OPTICAL FILTER (WV-KC)GL
113R	945 083 1691	OPTICAL FILTER (WV-KC)GR
114	945 078 0845	PRISM(PBS)
115	645 089 7757	POLARIZED GLASS(IN/G)
116	645 089 8761	POLARIZED GLASS(IN/B)
117R	945 083 1578	POLARIZED GLASS(IN/R)L
117L	945 085 8988	POLARIZED GLASS(IN/R)R
118	645 089 9713	DICHROIC MIRROR (B)
119	645 089 9720	DICHROIC MIRROR (G)

Key No.	Part No.	Description

PLV-Z5BK MC4-Z5BK00

CABINET,CHASSIS PARTS

1	610 332 0090	ASSY,BUTTON-MC4AA
2	910 326 9420	ASSY,FILTER LMP-M4WA
3	910 327 8613	COMPL,MOUNTING SHUTTER A-M4WA
3-1	910 325 3252	ASSY,MTG SHTR MOTOR-M4WA
4	610 331 9926	COMPL,STAND LEG-MC4AA
5	610 332 0397	CABINET TOP SERVICE-MC4AA
6	610 332 0359	CABINET FRONT SERVICE-MC4AA
7	610 332 0014	CABINET BOTTOM-MC4AA
8	610 332 0236	COVER LNS BOTTOM SERVICE-MC4AA
9	910 327 4349	COVER DUCT EXIT SIDE A-M4WA
10	610 331 9971	COVER LNS TOP-MC4AA
12	910 323 4060	DEC INLY LED-M4WA
13	610 331 3900	DEC LEG-MC4A
14	610 331 9735	DEC SHEET AV-MC4AA
15	610 331 9810	DEC SHEET RC-MC4AA
16	610 332 0199	PANEL BLOWER SERVICE-MC4AA
17	610 332 0120	PANEL LMP-MC4AA
18	610 331 9940	PANEL KNOB-MC4AA
19	610 331 9964	PANEL FILTER-MC4AA
20	610 331 9742	PANEL LMP FILTER-MC4AA
21	610 332 0182	PANEL SHUTTER SERVICE-MC4AA
22	910 302 7648	STOPPER LID-M4JA
23	945 063 7415	BADGE,SANYO*26.2X5.7L26.0
24	910 324 6216	COMPLE,FILTER-M4WC
25	910 325 3030	MOUNTING MAIN PWB A-MC4A
26	910 323 6118	MOUNTING SHUTTER BTM-M4WA
27	910 323 6156	MOUNTING SHUTTER UPPER-M4WA
29	910 324 5103	SPACER SHEET LNS BTM-M4WA
30	910 325 2699	SPACER SHEET LNS TOP-M4WA
33	945 022 0310	FIXER CLAMP
40	610 331 4815	COMPL,MOUNTING IRIS-MC4A
41	910 323 4039	COVER DUCT BTM-M4WA
42	910 323 4091	COVER DUCT TOP-M4WA
43	910 327 4585	COVER DUCT EXT LMP TOP A-M4WA
44	910 323 4480	COVER DUCT EXT LMP BTM-M4WA
45	910 327 3144	COVER DUCT LMP BTM A-M4WA
46	910 327 5070	COVER DUCT LMP TOP A-M4WA
47	910 327 2017	COVER DUCT LMP EXIT A-M4WA
48	910 325 4501	COVER SLIDE-M4WA
49	910 326 9604	FILTER LMP EXIT-M4WA
50	910 323 7184	HOLDER WV IN-M4WA
51	910 327 5995	MOUNTING TEMP SENS-M4WA
52	910 325 1043	MOUNTING BST-M4WA
53	910 324 5141	SPACER SHEET THERMISTOR-M4WA
54	910 327 3908	SPACER SHEET AV-M4WA
55	910 329 1155	SPACER SHEET BLOWER-M4WA
56	910 326 7303	SPACR SHET LINE FILTER A-M4WA
57	910 328 5529	SPACER SHEET BALLAST A-M4WA
58	910 323 9829	STOPPER THERM POL IN-M4WA
59	910 323 3995	OPTICAL BASE BTM-M4WA
60	910 323 4138	OPTICAL BASE TOP-M4WA
61	910 323 3872	OPTICAL BASE LMP-M4WA
62	910 323 4367	COMPL,MOUNTING LNS-M4WA
63	910 323 4299	MOUNTING POWER BTM-M4WA
64	910 323 4312	MOUNTING POWER TOP-M4WA
67	910 328 7059	COMPL,MOUNTING LNS REL-M4WA
68	910 325 1111	COMPL,MOUNTING LNS INT-M4WA
69	910 323 7320	STOPPER LNS INT IN C-M4WA
70	910 323 7511	STOPPER LNS INT IN D-M4WA
71	910 323 4459	STOPPER LNS REL-M4WA
72	910 323 7313	MOUNTING WV IN BASE-M4WA
73	910 323 7337	MOUNTING WV IN TOP-M4WA
74	910 323 7573	STOPPER WV IN-M4WA
75	910 324 0016	STOPPER POL IN-M4WA
76	910 326 9178	MOUNTING MAIN PWB C-M4WA
77	910 323 6125	SHIELD,COVER DUCT-M4WA

SCREWS

S1	312 069 8300	SPECIAL SCREW W
S2	411 189 8600	SCR BIN 3X8
S3	411 208 3609	SCR OVL 3X6
S4	411 189 7207	SCR S-TPG BIN 3X8
S5	312 072 7000	SPECIAL SCREW
S6	411 190 5308	SCR S-TPG PAN 3X8
S7	411 189 6507	BOLT HEX-SCT+SW+W 2.5X5
S8	312 069 7105	SPECIAL SCREW V
S9	411 188 6706	SCR S-TPG BIN 3X8
S10	411 203 5400	SCR BIN 2X2
S11	411 203 5608	SCR PAN+SW+W 2X5
S12	312 072 6805	SPECIAL SCREW 3X5.0
S13	312 072 6003	SPECIAL SCREW
S14	411 205 6702	SCR PAN PCS 2.6X8
S15	411 204 0008	SCR PAN PCS 2.6X6

OPTICAL PARTS

101	645 089 8426	ASSY,LENS,PROJECTION
102R	910 331 4731	ASSY,LCD PNL/PSM R-MC4A
102R-1	945 083 1684	OPTICAL FILTER (WV-QZ)BL
102-2	945 083 1653	POLARIZED GLASS(OUT/R)
102-3	645 089 7764	POLARIZED GLASS(OUT/G)
102-4	645 089 8778	POLARIZED GLASS(OUT/B)
102-5	910 323 6040	STOPPER POL OUT UP-M4WA
102-6	910 326 8560	STOPPER POL OUT UP B-M4WA
102L	910 331 4717	ASSY,LCD PNL/PSM L-MC4A
102L-1	645 090 9900	OPTICAL FILTER (WV-QZ)BR
102-2	945 083 1653	POLARIZED GLASS(OUT/R)
102-3	645 089 7764	POLARIZED GLASS(OUT/G)
102-4	645 089 8778	POLARIZED GLASS(OUT/B)
102-5	910 323 6040	STOPPER POL OUT UP-M4WA
102-6	910 326 8560	STOPPER POL OUT UP B-M4WA
103	945 078 9107	LENS,INTEGRATOR(IN)
104	945 083 6528	LENS,INTEGRATOR(OUT)UV
105	945 078 9121	LENS,CONDENSER(OUT)
106	945 078 9138	LENS,CONDENSER(G)
107	945 078 9220	LENS,CONDENSER(B)
108	945 078 9237	LENS,CONDENSER(R)
109	945 078 9244	LENS,RELAY(OUT)
110	945 078 9305	MIRROR(B)
111	945 078 9312	MIRROR(R)
112	945 078 9343	OPTICAL FILTER (R)
113L	945 083 1677	OPTICAL FILTER (WV-KC)GL
113R	945 083 1691	OPTICAL FILTER (WV-KC)GR
114	945 078 0845	PRISM(PBS)
115	645 089 7757	POLARIZED GLASS(IN/G)
116	645 089 8761	POLARIZED GLASS(IN/B)
117R	945 083 1578	POLARIZED GLASS(IN/R)L
117L	945 085 8988	POLARIZED GLASS(IN/R)R
118	645 089 9713	DICHROIC MIRROR (B)
119	645 089 9720	DICHROIC MIRROR (G)

(MC4A) Sep. 2006 DC 350 Printed in Japan

SANYO Electric Co., Ltd.

■ Diagrams & Drawings

Schematic Diagrams
Printed Wiring Board Drawings

Model	Chassis No.
PLV-Z5	MC4-Z500
PLV-Z5BK	MC4-Z5BK00

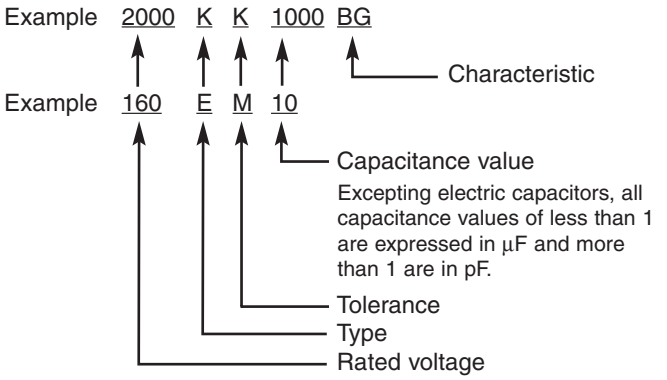
These schematic diagrams and printed wiring board drawings are part of the service manual original for chassis No. MC4-Z500,MC4-Z5BK00, models PLV-Z5,PLV-Z5BK.
File with the service manual No. SM5110808-00.

Note:
All the information of part numbers and values indicated on these diagrams are at the beginning of production. To improve the performance, there may be some differences to the actual set. When you order the service parts, use service parts code mentioned on the parts list in this service manual.

■ Parts description and reading in schematic diagram

1. The parts specification of resistors, capacitors and coils are expressed in designated code. Please check the parts description by the following code table.
2. Some of transistors and diodes are indicated in mark for the substitution of parts name. Please check the parts name by the following code table.
3. Voltages and waveforms were taken with a video color bar signal(1Vp-p at 75 ohms terminated) and controls to normal.
4. Voltages were taken with a high-impedance digital voltmeter.

Capacitor Reading


Example 2000 K K 1000 BG
Characteristic
Example 160 E M 10
Capacitance value
Excepting electric capacitors, all capacitance values of less than 1 are expressed in μF and more than 1 are in pF.
Tolerance
Type
Rated voltage

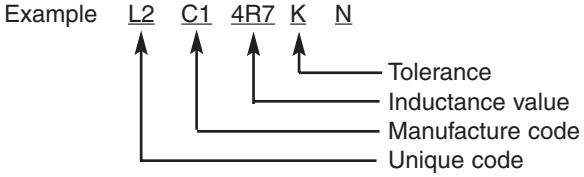
Material table

Mark	Material
E	Electrolytic
P	Electrolytic (non-polarized)
C	Ceramic (temperature compensation)
K	Ceramic
F	Polyester
N	Polypropylene
M	Metalized polypropylene
H	Metalized polypromylar
B	Ceramic (semiconductor)
G	Metalized polyestel
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

Tolerance table

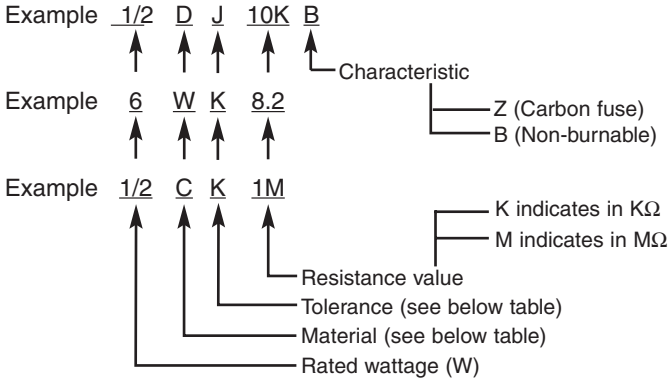
Mark	Tolerance
A	not specified
B	±0.1
C	±0.25
D	±0.5
F	±1
G	±2
E	±2.5
H	±3
J	±5
K	±10
M	±20
N	±30
P	+100 -0
Q	+30 -10
T	+50 -10
U	+75 -10
V	+20 -10
W	+100 -10
X	+40 -20
Y	+150 -10
Z	+80 -20

Coil Reading



Mark	Tolerance (nH)	Mark	Tolerance (%)
C	±0.25	G	±2
D	±0.5	J	±5
S	±0.3	K	±10
A	±0.2	L	±15
		M	±20

Resistor Reading



Note: Resistor which is indicated with resistance value only are 1/6W carbon resistor. Resistor which is indicated with material, tolerance and value are 1/4W rated wattage.

Material table

Mark	Material
D	Carbon
N	Metal film
S	Oxide metal film
C	Solid
G	Metal glaze
W	Wire wounding or cement
H	Ceramic
F	Fusible

Tolerance table

Mark	Tolerance
A	±0.05
B	±0.1
C	±0.25
D	±0.5
F	±1
G	±2
J	±5
K	±10
M	±20
P	+5 -15
Z	used in 0 ohm

Diode/Transistor Type Reading

Diode

Mark	Type number
R	1S2076A,1S2473,1N4148
AA	1S2076A,1S2473,1SS133,1N4148

Transistor

(1) NPN type

Mark	Type number				
--	2SC536	2SC945A	2SC1815	2SC1740S	
AD	NF, NG	PA, QA	Y, GR	Q, R, S	
AE	NF, NG	PA, QA, RA	O, Y, GR	Q, R, S	

(2) PNP type

Mark	Type number				
--	2SA608	2SA564A	2SA1015	2SA933S	
AB	NF	R	Y, GR	R	
AC	NF	Q, R	O, Y, GR	Q, R	

(3) Chip type

Mark	Type number				
--	2SA1179/N	2SA1037K	2SA1037AK	2SC2812/N	2SC2412K
AJ	M6, M7	R, S	R, S		
AH				L6, L7	R, S

■ Schematic Diagrams

AC CORD
AC100-120V
AC200-240V

CAUTION

Fuse of the specified parts number must be used.
Unauthorized substitutions may result in fire or accident.

FILTER

FRAME GND BRACKET

F.G.

POWER UNIT

LAMP BALLAST UNIT

HOT SIDE

COLD SIDE

LP901
METAL HALIDE LAMP

Pri.

Sec.

PROJECTION LENS

DOOR SW-A

DOOR SW-B

DOOR MOTER

LAMP SW

LAMP IRIS

LENS IRIS MOTOR

MAIN

R LCD PANEL EL901

G LCD PANEL EL902

B LCD PANEL EL903

R/C

EXT.THERMISTOR1 ROOM TEMP.

EXT.THERMISTOR2 PANEL TEMP.

CTRL

CAUTION

Components indicated by a mark ⚠ in this schematic diagram have the special significance in the safety. It is therefore, particularly recommended that the replacement of those parts must be made by exactly the same parts.Must be used with a specified fuse. Unauthorized substitutions may result in fire or accident. This projector is isolated from AC line by using the internal converter transformer. Please pay attention to the following notes in servicing.

1. Do not touch the part on hot side (primary circuit) or both parts on the hot and cold sides (secondary circuit) at the same time.
2. Do not shorten the circuit between hot and cold sides.
3. The grounding lead must be connected to the ground of the same circuit when measuring the voltages and waveform.

HDMI2

DigitalINPUT
With HDCP

HDMI1

DigitalINPUT
With HDCP

COMPUTER

D-Sub

AnalogINPUT
SCART

VIDEO

S-VIDEO

COMPONENT1

YPbPr

COMPONENT2

YPbPr

SERVICE PORT

IC8171
TC7WBD125AFK

IC8101
TC74LVX4053FT

IC8131
TC74LVX4053FT

IC8111
24C02CT-I

IC8141
24C02CT-I

DDC_SW1	DDC_SW2	Function
HIGH	HIGH	PW386_IC8141(NVRAM) CONNECT
HIGH	LOW	PW386_IC8111(NVRAM) CONNECT
LOW	X	IC8111(NVRAM) - K10A IC8141(NVRAM) - K10B CONNECT

IC8121
TC7WBD125AFK

IC8151
TC7WBD125AFK

IC301

IC8001
SII9023CTU

HDMI RECEIVER

IC8071
TA48033AF

IC8081
SI-3018LSA

S/CV-SW

IC5231
TC7W53FU

YUV-SW

IC5201
NJM2584AM

IC8251
PQ033EZ01ZP

IC8261
SI-3018LSA

IC8281
PQ033EZ01ZP

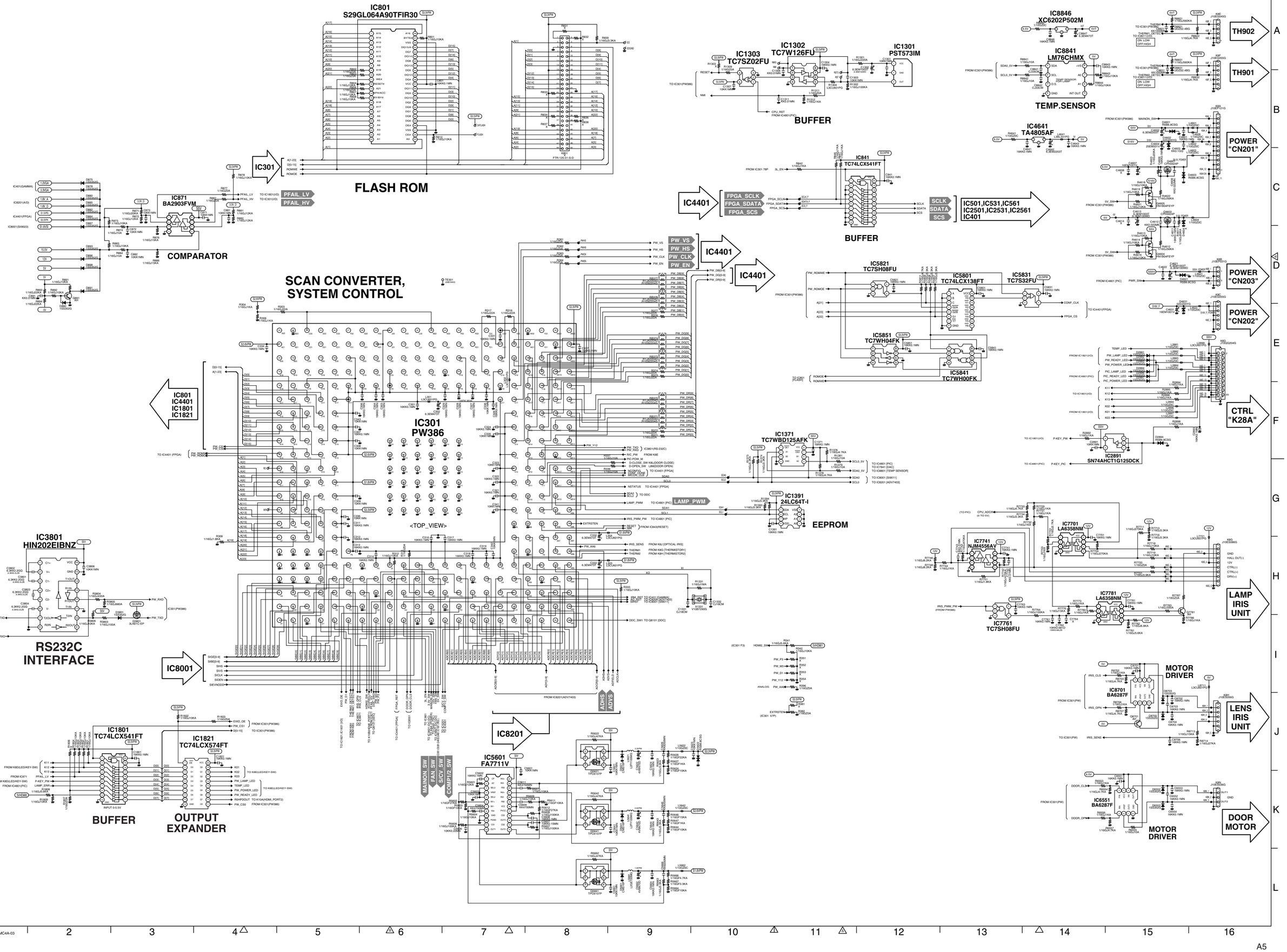
IC8291
SI-3018LSA

IC8201
ADV7403BSTZ

VIDEO DECODER & A/D

IC8271
SN74AHC2G14HDCT3

	1	2	3
5V	1080	P	16:9
2.2V	720		4:3 LETTER BOX
0V	480	I	4:3


IC801
S29GL064A90TFIR30
FLASH ROM
IC301
PFAIL_LV
PFAIL_HV
IC871
BA2903FVM
COMPARATOR
IC1303
TC7SZ02FU
IC1302
TC7W126FU
IC1301
PST573IM
BUFFER
IC8846
XC6202P502M
IC8841
LM76CHMX
TEMP.SENSOR
TH902
TH901
IC4641
TA4805AF
POWER "CN201"
IC4401
FPGA_SCLK
FPGA_SDATA
FPGA_SCS
IC841
TC74LCX541FT
SCLK
SDATA
SCS
IC501,IC531,IC561
IC2501,IC2531,IC2561
IC401
POWER "CN203"
POWER "CN202"
SCAN CONVERTER,
SYSTEM CONTROL
IC801
IC4401
IC1801
IC1821
IC301
PW386
<TOP_VIEW>
PW_VS
PW_HS
PW_CLK
PW_EN
IC5821
TC7SH08FU
IC5801
TC74LCX138FT
IC5831
TC7S32FU
IC5851
TC7WH04FK
IC5841
TC7WH00FK
IC1371
TC7WBD125AFK
IC1391
24LC64T-I
EEPROM
IC7701
LA6358NM
IC7741
NJM4556AV
IC7781
LA6358NM
IC7761
TC7SH08FU
LAMP IRIS UNIT
IC3801
HIN202EIBNZ
RS232C
INTERFACE
IC8001
IC1801
TC74LCX541FT
IC1821
TC74LCX574FT
BUFFER
OUTPUT
EXPANDER
IC8201
ADHS
ADVS
IC5601
FA7711V
MAINON SW
FAN SW
S/CV SW
COMP12 SW
IC1371
TC7WBD125AFK
IC1391
24LC64T-I
EEPROM
IC8701
BA6287F
MOTOR
DRIVER
LENS IRIS UNIT
IC6551
BA6287F
MOTOR
DRIVER
DOOR MOTOR
IC2891
SN74AHCT1G125DCK
CTRL "K28A"

IC3431
BA33BC0FP

IC3401
MSM56V16160J

SDRAM

IC301

IC4401
EP1S25F672C8N

COLOR MANAGER

IC401

IC841

SUB CPU

IC2821
TC7SZ14FU

IC4812
TC7SET32FU

IC4811
TC7SET32FU

IC4801
PIC16F873AT

IC4831
MC74VHC14DT

IC4832
MC74ACT00DT

IC4833
MC74VHC14DT

IC7831
74LVC14APW

IC7841
M62334FP

DAC

IC6601
FA7711V

IC6621
FA7701V

POWER_HV/LV

LAMP_PWM

LAMP_ERR

R/C
"K28D"

DOOR SW_B
"K8811"

DOOR SW_A
"K8801"

LAMP BALLAST
"CN201"

SW902

LAMP SW
"K8803"

FN901

FN902

FN903

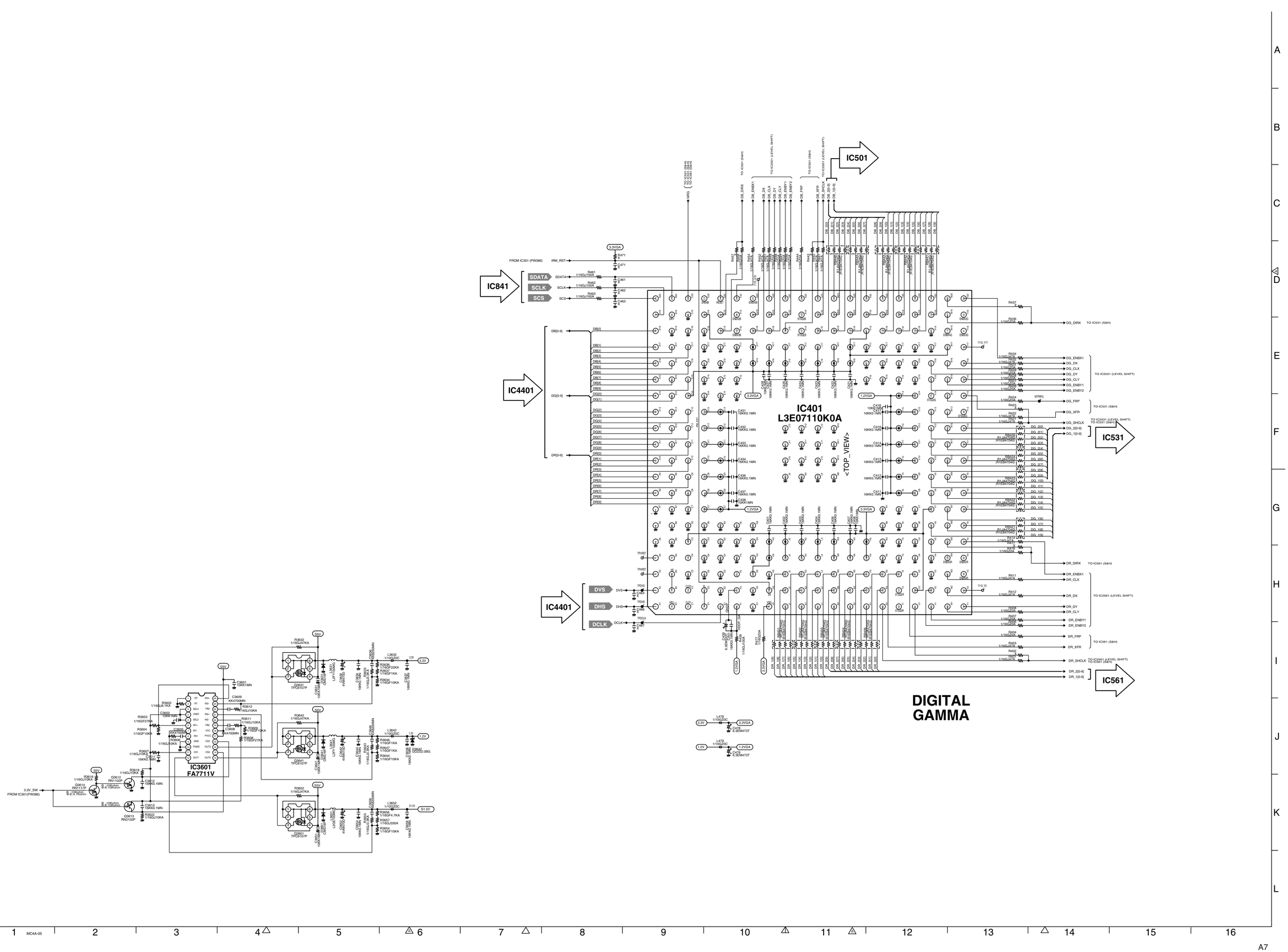
FN904

FN905

FAN_SW

DCLK
DHS
DVS

FPGA_SCLK
FPGA_SDATA
FPGA_SCS


IC841
IC4401
IC501
IC531
IC561
IC401
L3E07110K0A
<TOP_VIEW>
IC3601
FA7711V
DIGITAL
GAMMA
SDATA
SCLK
SCS
DVS
DHS
DCLK
FROM IC301 (PW386)
IRM_RST
3.3V_SW
FROM IC301(PW386)
TO IC2531 (S&H)
TO IC561 (S&H)
TO IC501 (S&H)
TO IC2561 (LEVEL SHIFT)
TO IC531 (S&H)
TO IC2531 (LEVEL SHIFT)
TO IC531 (S&H)
TO IC2561 (LEVEL SHIFT)
TO IC561 (S&H)
TO IC561 (S&H)
TO IC2561 (LEVEL SHIFT)
TO IC561 (S&H)
TO IC561 (LEVEL SHIFT)
TO IC561 (S&H)
TO IC2531 (LEVEL SHIFT)
TO IC531 (S&H)
TO IC531 (LEVEL SHIFT)
TO IC561 (S&H)
TO IC561 (LEVEL SHIFT)
TO IC561 (S&H)
TO IC2561 (LEVEL SHIFT)
TO IC561 (S&H)
TO IC561 (LEVEL SHIFT)
TO IC561 (S&H)
TO IC561 (LEVEL SHIFT)

IC1581
BAJ2CC0WFP

IC401

IC501
L3E06150S2A
B-S&H

IC841

IC2501
L3E01060P0A
B-LEVEL SHIFT

B-LCD PANEL

IC401

IC531
L3E06150S2A
G-S&H

IC841

IC2531
L3E01060P0A
G-LEVEL SHIFT

G-LCD PANEL

IC401

IC561
L3E06150S2A
R-S&H

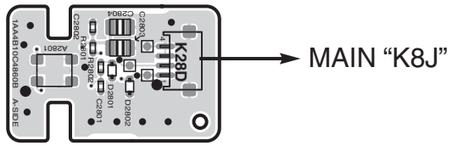
IC841

IC2561
L3E01060P0A
R-LEVEL SHIFT

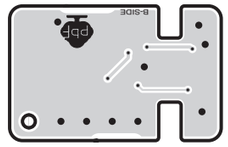
R-LCD PANEL

■ Printed Wiring Board Diagrams

R/C (SIDE:A)

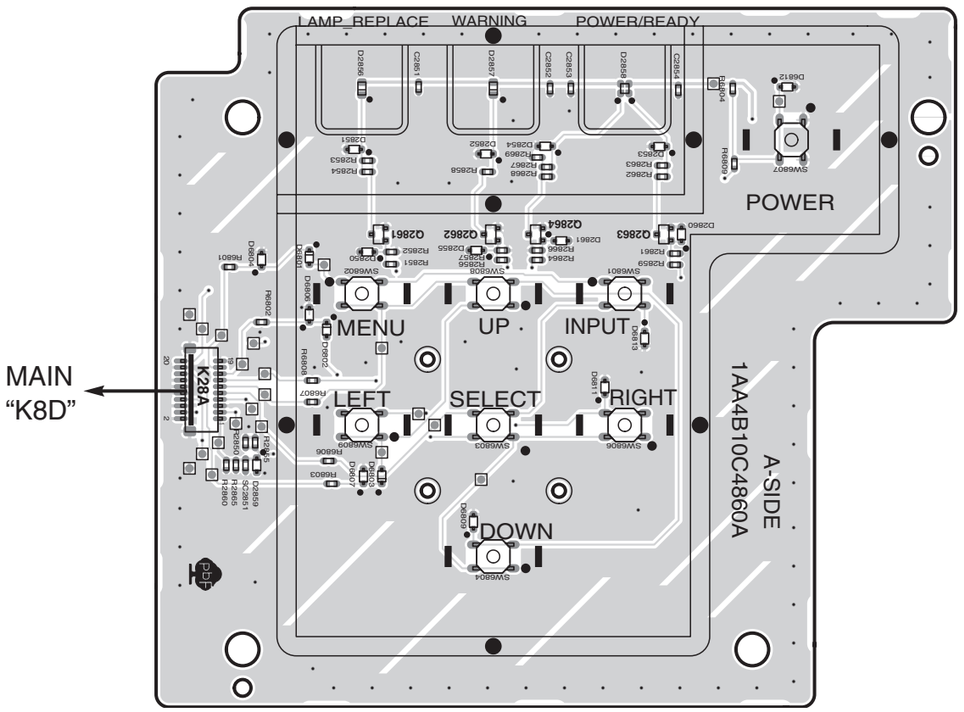


R/C (SIDE:B)

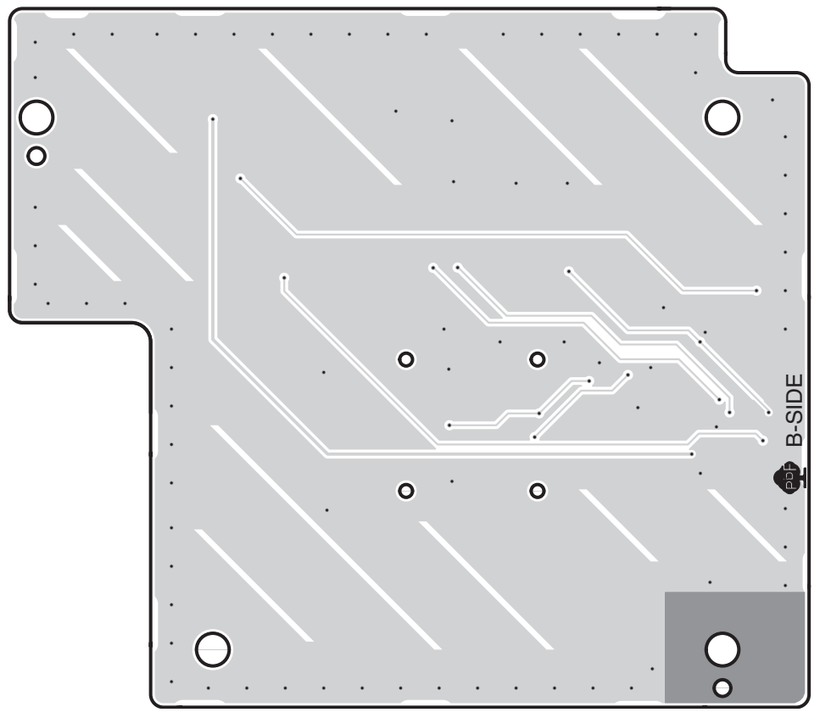


> ⚠ CAUTION
>
> This projector is isolated from AC line by using the internal converter transformer. Please pay attention to the following notes in servicing
> 1. Do not touch the part on hot side (primary circuit) or both parts on hot and cold sides (secondary circuit) at the same time.
> 2. Do not shorten the circuit between hot and cold sides.
> 3. The grounding lead must be connected to the ground of the same circuit when measuring of voltages and waveforms.

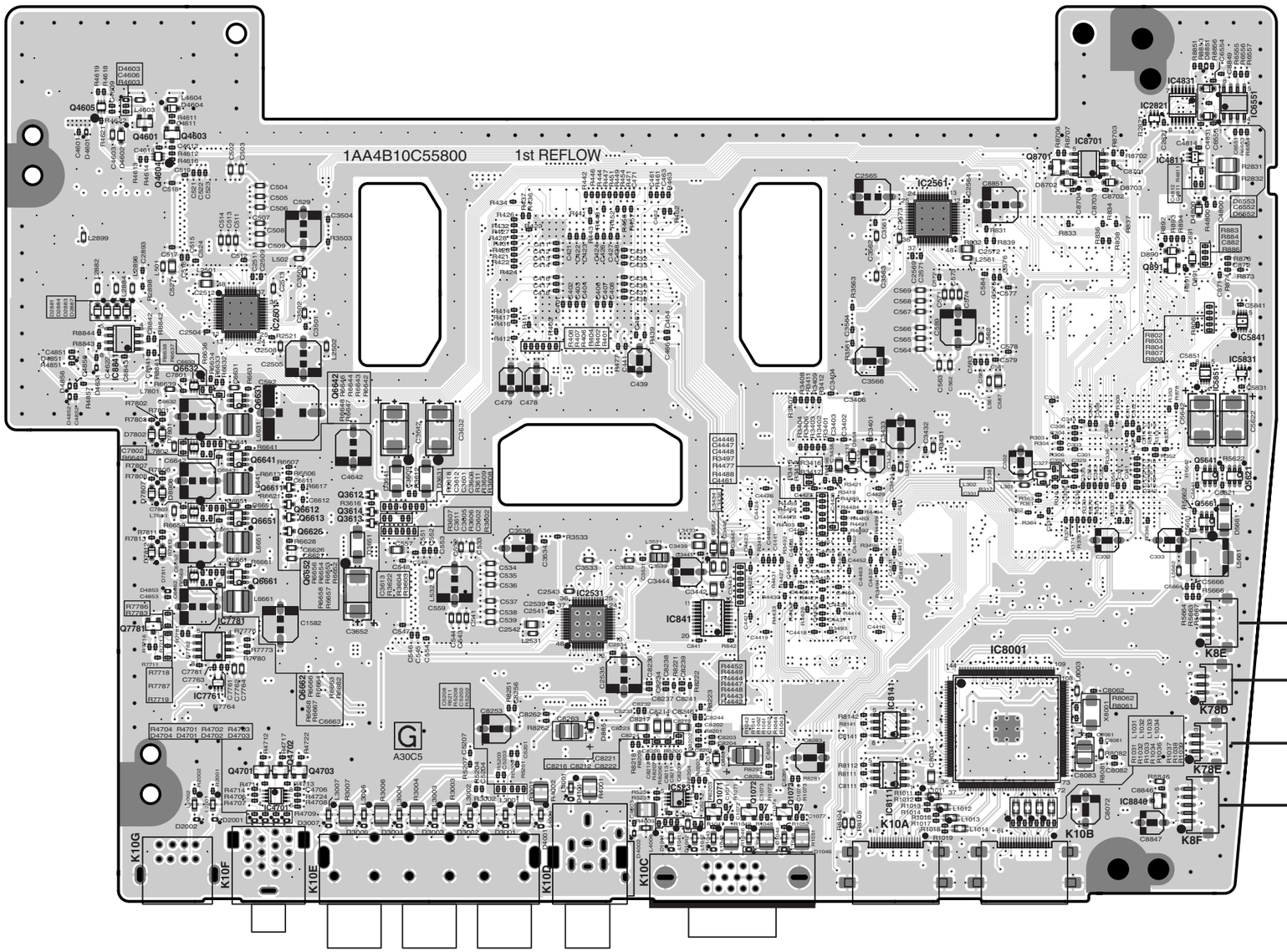
CTRL (SIDE:A)



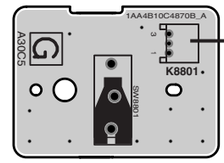
CTRL (SIDE:B)



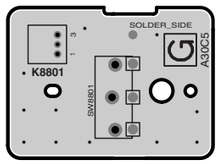
MAIN (SIDE:A)



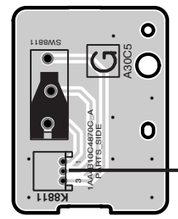
DOOR SW_A (SIDE:A)



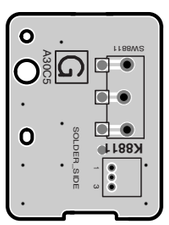
DOOR SW_A (SIDE:B)



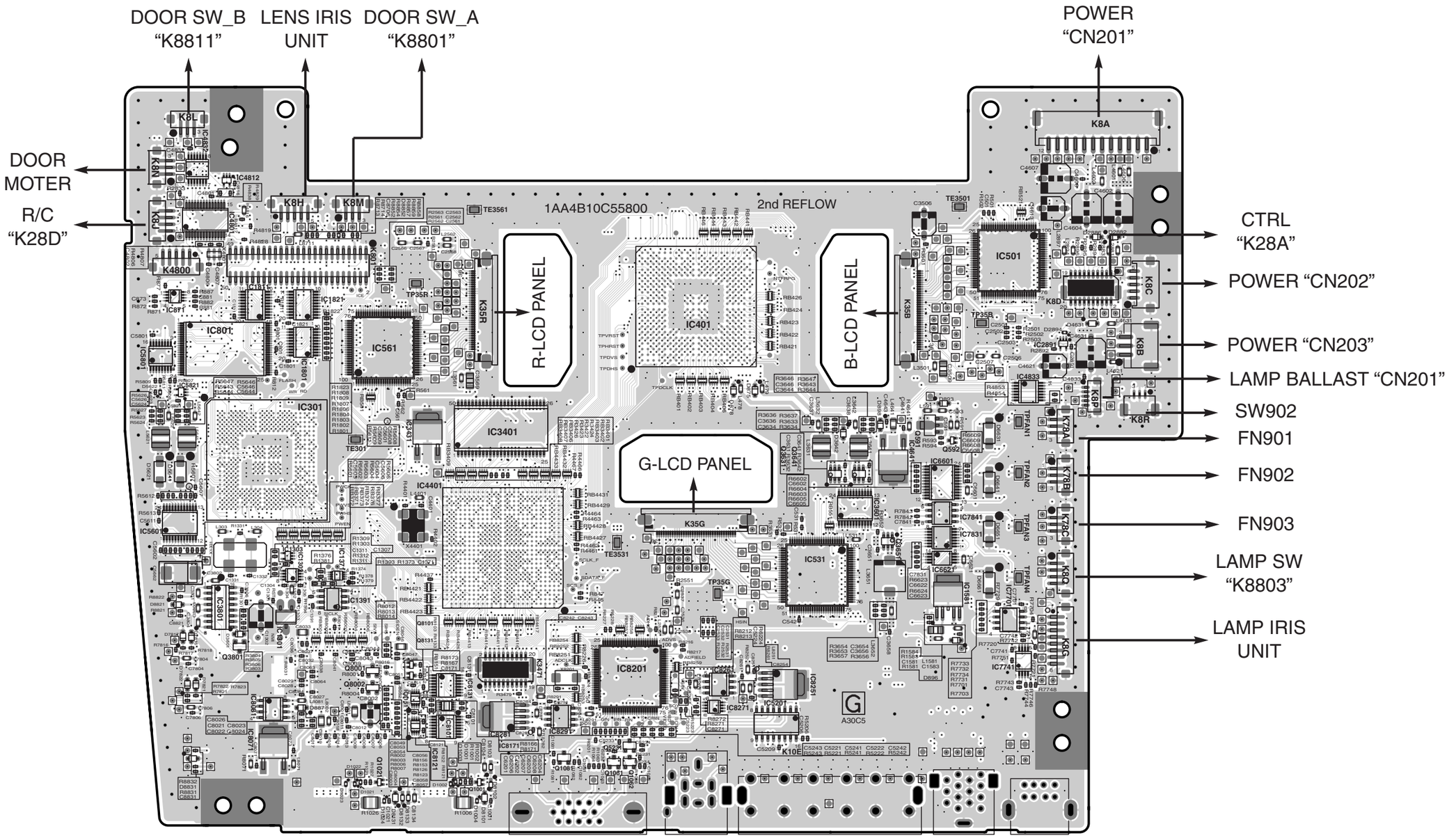
DOOR SW_B (SIDE:A)



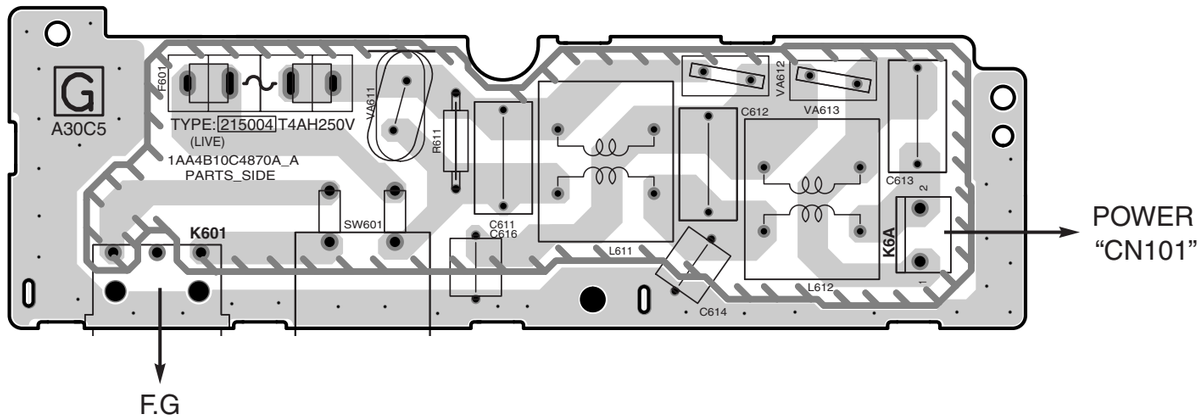
DOOR SW_B (SIDE:B)



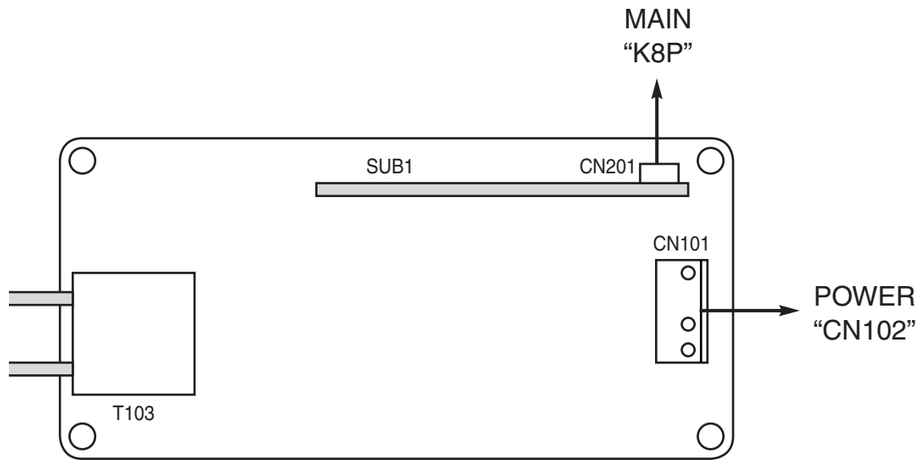
MAIN (SIDE:B)


DOOR SW_B
“K8811”
LENS IRIS
UNIT
DOOR SW_A
“K8801”
POWER
“CN201”
DOOR
MOTER
R/C
“K28D”
CTRL
“K28A”
POWER “CN202”
POWER “CN203”
LAMP BALLAST “CN201”
SW902
FN901
FN902
FN903
LAMP SW
“K8803”
LAMP IRIS
UNIT
1AA4B10C55800
2nd REFLOW
R-LCD PANEL
B-LCD PANEL
G-LCD PANEL
K8L
K8N
K8J
K8H
K8M
K8A
K8C
K8D
K8B
K8P
K8R
K78A
K78B
K78C
K8G
K8S
K35R
K35B
K35G
K10E
IC4812
IC4800
IC801
IC561
IC401
IC3401
IC4401
IC301
IC501
IC4833
IC2891
IC7841
IC7831
IC6621
IC7581
IC7741
IC531
IC8201
IC8271
IC5207
IC6601
IC5601
IC3801
IC6071
IC8121
IC3431
IC8291
IC8381
IC3301
IC5801
IC821
IC871
TE3561
TE3531
TE301
TE3501
TP35R
TP35G
TPFAN1
TPFAN2
TPFAN3
TPFAN4
A30C5

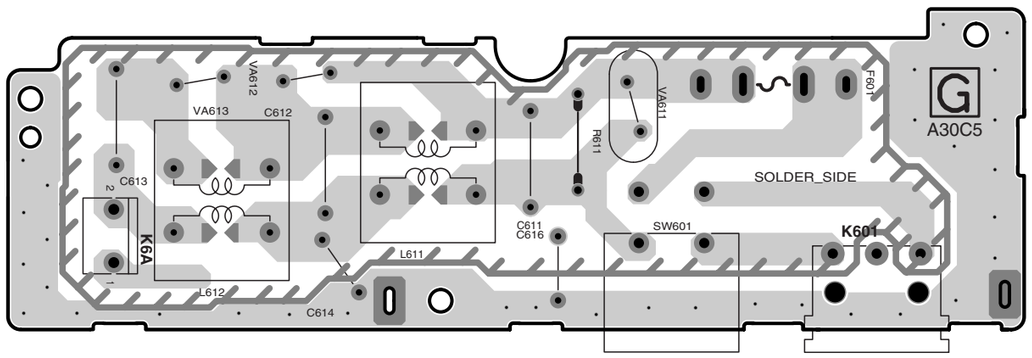
FILTER (SIDE:A)



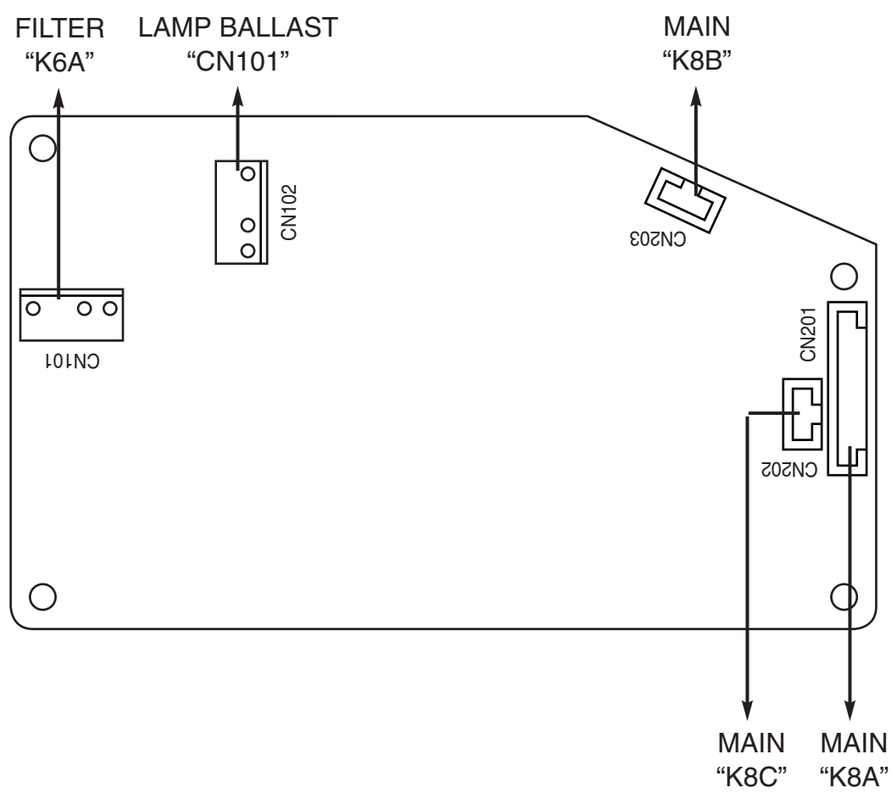
LAMP BALLAST (SIDE:A)



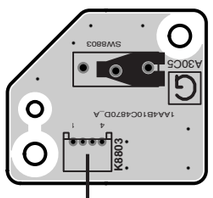
FILTER (SIDE:B)



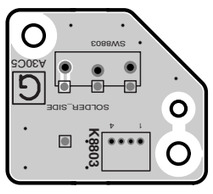
POWER (SIDE:A)



LAMP SW (SIDE:A)

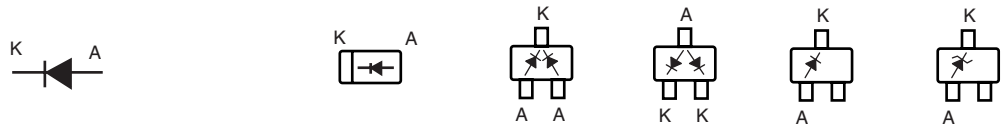


LAMP SW (SIDE:B)



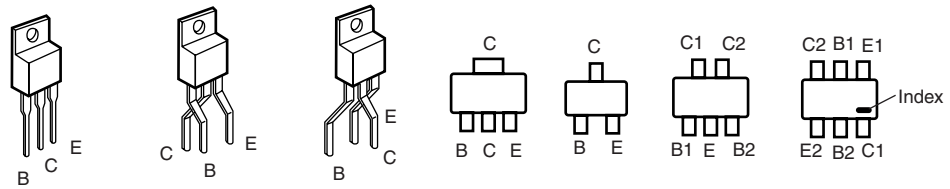
■ Pin description of diode, transistor and IC

● Diode



K: Cathode
A: Anode

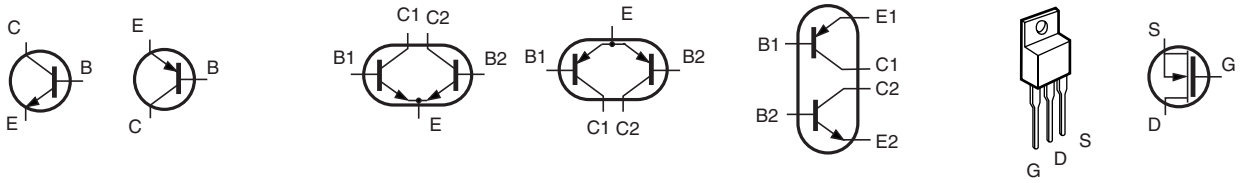
● Transistor/FET



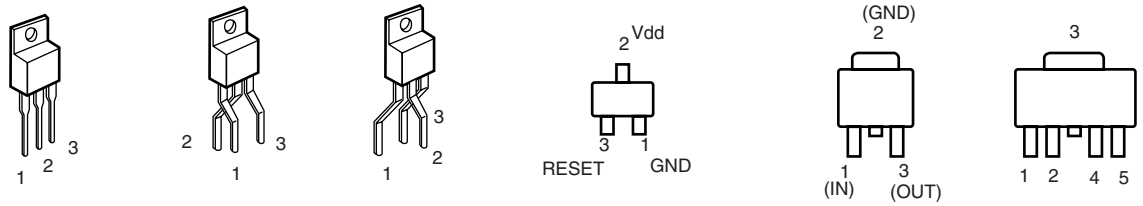
C: Collector
B: Base
E: Emitter

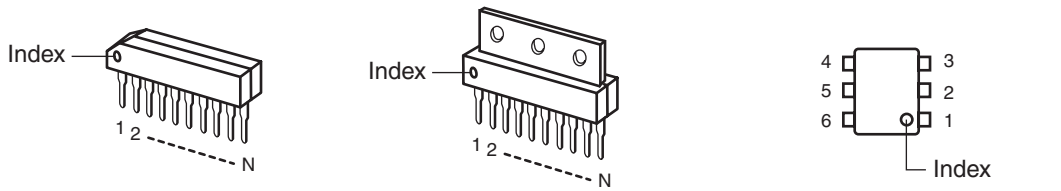
D: Drain
G: Gate
S: Source

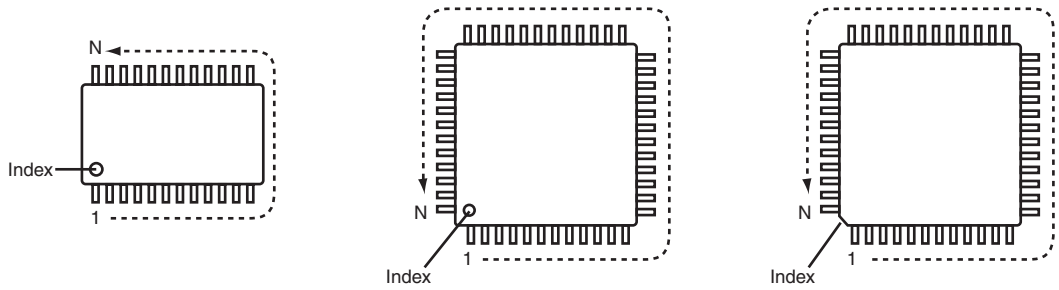
FET

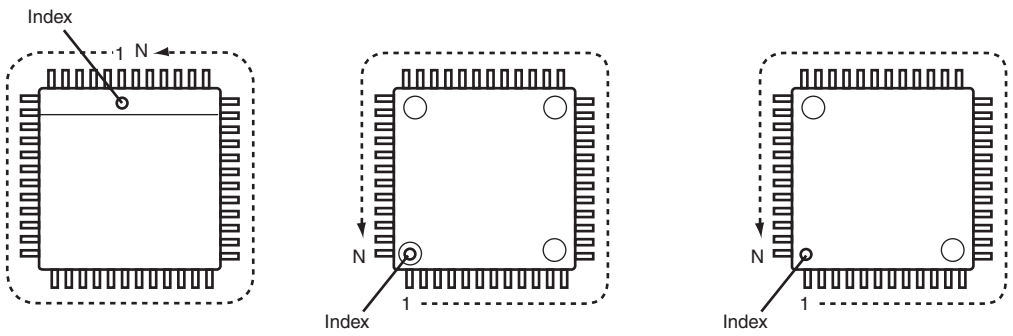


● IC









■ Note on soldering

Do not use solder containing lead.
This product has been manufactured using lead-free solder in order to help preserve the environment.
Because of this, be sure to use lead-free solder when carrying out repair work, and never use solder containing lead.

Lead-free solder has a melting point that is 30–40 °C (86–104 °F) higher than solder containing lead, and moreover it does not contain lead which attaches easily to other metals. As a result, it does not melt as easily as solder containing lead, and soldering will be more difficult even if the temperature of the soldering iron is increased.
The extra difficulty in soldering means that soldering time will increase and damage to the components or the circuit board may easily occur.
Because of this, you should use a soldering iron and solder that satisfy the following conditions when carrying out repair work. Also, soldering work must be done in a short time.

Soldering iron
Use a soldering iron which is 70 W or equivalent, and which lets you adjust the tip temperature up to 450 °C (842 °F) It should also have as good temperature recovery characteristics as possible.

Solder
Use solder with the metal content and composition ratio by weight given in the table below. Do not use solders which do not meet these conditions.

Metal content	Tin (Sn)	Silver (Ag)	Copper (Cu)
Composition ratio by weight	96.5 %	3.0 %	0.5 %

Note:
If replacing existing solder containing lead with lead-free solder in the soldered parts of products that have been manufactured up until now, remove all of the existing solder at those parts before applying the lead-free solder.